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ABSTRACT

Indiana's Evansville-Vanderburgh School Corporation began full-day, everyday kindergarten in four schools in the 1978-1979 school year. In 1980, an evaluation of the effectiveness of the first two years of full-day kindergarten was published. A longitudinal study of the effectiveness of full-day kindergarten, including information concerning grades one through four, was issued in 1983. This report summarizes the earlier two studies, adds information about grades five through eight, and ties together the various strands and grade-level results to determine the consequences of full-day kindergarten. The purpose of the study was to determine whether the students who completed full-day, everyday kindergarten in 1979 or 1980 obtained long-term benefits. These students were compared with students in half-day programs. Data were collected from standardized tests, report cards, school records, questionnaires, and interviews. Included in the report are approximately 20 pages of copies of newspaper articles concerning implementation of full-day kindergarten in Evansville. Articles reveal the high degree of interest in starting the full-day program. Concerns focus on student achievement, parent and teacher acceptance, attitudes, self-concept, attendance, participation in school activities, burnout, and content of the school day. (RH)

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

A LONGITUDINAL STUDY OF THE CONSEQUENCES OF FULL-DAY KINDERGARTEN: KINDERGARTEN THROUGH GRADE EIGHT

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EVANSVILLE-VANDERBURGH SCHOOL CORPORATION
Evansville, Indiana
1988

FOREWORD

The Evansville-Vanderburgh School Corporation began full-day, every-day kindergarten in four schools in the 1978-1979 school year. In 1980, an evaluation of the first two years of full-day kindergarten was published in a report entitled A Study of the Effectiveness of Full-Day Kindergarten. A second report, A Longitudinal Study of the Effectiveness of Full-Day Kindergarten, was issued in 1983 and included information from grades one through four concerning students', parents', and teachers' attitudes about full-day kindergarten; standardized test scores including self-concept, school attitudes, handwriting, reading, mathematics, and other academic subjects; retention; and report card academic and conduct marks.

This report summarizes the first two studies, adds information about grades five through eight, and ties together the various strands and grade-level results to determine the consequences of providing full-day kindergarten.

ACKNOWLEDGMENTS

The longitudinal study of full-day kindergarten began in 1978. Much information has been collected and processed since that time concerning the children who were in the experimental and control groups. Meanwhile, the school system was converted from a K-8 to a K-5, 6-8 organization, and many other changes occurred. Nevertheless, all parties concerned provided requested information needed for the study.

The staffs of the four experimental and four control schools furnished needed data and administered several tests in addition to those normally given to students. All ten middle schools had students from both the experimental and control groups, and they made available statistics concerning participation in school activities.

I want to express special gratitude to Dr. Ralph Templeton of the University of Evansville for the statistical analysis of the data; to Ray Billingsley for data processing assistance; to Dr. Susan McDowell for test information; to Harry Friley for layout and cover design; to Mary Chandler for work at the initial stage of the study; to Kay Daniels for typing the manuscript; to Jackie Heathcott, Carolyn Hoos, Marcia Miller, and Dr. Christina Mitchell for reviewing the study; and to the four original full-day kindergarten teachers: Sharon Deutsch, Cuba Little, Barbara Marr, and Martha Rohlfer.

Jack W. Humphrey
Director of Reading Services
and Special Projects

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CHAPTER I

INTRODUCTION

Full-day kindergarten classes were started in four schools in the 1978-1979 school year, and four schools which continued the half-day kindergarten program were matched with them. Two follow-up studies were conducted. A Study of the Effectiveness of Full-Day Kindergarten was prepared in 1980, and A Longitudinal Study of the Effectiveness of Full-Day Kindergarten was released in 1983. The present study combines the kindergarten through grade four data from the two previous studies with additional information obtained from grades five through eight.

In 1978, few studies were available concerning the effectiveness of full-day kindergarten. Those studies that were available were summarized in the first study, and further information was reported in later years in the Position Statement on Kindergarten, Nebraska State Department of Education, 1984; the All-Day Kindergarten: Resources for Decision-Making, New Jersey Department of Education, 1985; The Status of Kindergarten: A Survey of the States, Illinois State Board of Education, 1985; and the Report to the State Board of Education: Full-Day, Daily Kindergarten, Minnesota Department of Education, 1986.

Additionally, in 1978 it was difficult to obtain statistics concerning the number of children and/or schools involved in full-day kindergarten. As late as 1983, as shown in Table I, many states did not have information about full-day kindergarten. This is contrasted with Table II which shows that states have much more information available in 1988 about full-day kindergarten finance, attendance, and starting age.

Reasons for Full-Day Kindergarten

The reasons for changing from half-day to full-day kindergarten as described in several reports (References 1, 2, and 4) are as follows:

1. Over half of the children in the United States receive some type of prekindergarten experience, and much of this experience is for a full day.

2. Children have more opportunities to become a part of the school because they can more frequently use facilities such as the gymnasium, cafeteria, auditorium, and library.

3. Children may have access to specialists in art, music, and physical education.

4. Children with special needs can benefit from services in the full-day elementary school schedule.

5. Children have opportunities for more field trips.

TABLE I

SUMMARY OF
RESULTS OF KINDERGARTEN SURVEY - 1983

STATE	NUMBER HALF-DAY	NUMBER FULL-DAY EVERY-DAY	NUMBER FULL-DAY ALTERNATE DAY	NUMBER OF OTHER
*Alabama				
*Alaska				
Arizona	605 (schools)	7 (schools)		
Arkansas	289	1,112		
California	9,663 (A kindergarten teacher is assigned only one kindergarten session and the full-time duties of the teacher are directly related to that kindergarten class.)			
Colorado	1,620	122	200	11
Connecticut	1,092	16		
Delaware	296	2		
Florida	2 (districts)	65 (districts) (A few schools may have half-day kindergarten within these districts.)		
Georgia	1,222	1,592		
Hawaii		173		
Idaho	93		11	2
Illinois	2,419	67	90	
*Indiana				
Iowa	172	92	109	95
Kansas	278		21	8
Kentucky	135 (districts)	4 (districts)	24 (districts)	17 (dist.)
Louisiana	10 percent	90 percent		
Maine	245	26	4	8
*Maryland				
*Massachusetts				
*Michigan				
*Minnesota				
Mississippi	(No state records but the majority are probably half-day. By 1986 it is anticipated that there will be a substantial number of full-day kindergartens.)			
Missouri	294	232		
Montana	171		85	
*Nebraska				
*Nevada				
New Hampshire	53	2 (districts)		
New Jersey	1,267	136		250
*New Mexico				
New York	132,933 (children-public)	28,466 (children-public)		
	21,158 (children-nonpublic)	22,443 (children-nonpublic)		
North Carolina		2,838		
North Dakota	76		148	2
*Ohio				
Oklahoma	617 (districts)			
*Oregon				
*Pennsylvania				
Rhode Island	(Information not available - all school systems required by law to provide kindergarten.)			
South Carolina	1,462	177		
South Dakota	46	10	132	12
Tennessee	(No data available)			
Texas	(A half-day or half-year kindergarten program is funded by the state and is offered in every school district. Approximately 25% are in a full-day kindergarten program because they qualify for a free lunch or do not speak English. Many other districts offer full-day, every-day programs and pay additional expenses from local funds.)			
Utah	(State Department does not collect this information.)			
*Vermont				
Virginia	35 (divisions)	104 (divisions)		
*Washington				
*West Virginia				
Wisconsin	(State Department does not collect this information.)			
Wyoming	210			

*No information received as of April 14, 1983

TABLE II

FULL-DAY KINDERGARTEN SURVEY

April 1, 1988

	STATE	ORGANIZATION				FINANCE for FULL-DAY EVERY-DAY KINDERGARTEN			KINDERGARTEN ATTENDANCE		STARTING AGE	
		Number Children Full Day, Every Day	Number Children Half Day	Number Children Full Day, Alternate Day	Number Children Other	State Finance	State Does Not Finance	Other	Mandatory	Not Mandatory	State Uniform Starting Age	No Uniform Starting Age
	ALABAMA	54,870				X				X	October 1	
	ARIZONA	State does not have this information.					X			X	September 1	
(1)	CALIFORNIA	1,000	300,600			X				X	September 1	
(2)												
(3)	CONNECTICUT	State does not have this information.				X				X	January 1	
(4)												
	FLORIDA	116,192	6,115			X			X		September 1	
	HAWAII	14,252				X				X	December 31	
(5)												
	ILLINOIS	34,133	103,260	3,607		X				X	September 1	
(6)												
	IOWA	7,786	21,925	7,176	3,368	X				X	September 15	
	KENTUCKY	800	29,000	10,900			X		X		October 1	
	MAINE	1,901	14,804			X				X	October 15	
	MASSACHUSETTS	6,300	52,000	150		X			X			X
	MINNESOTA	State does not have this information.					X			X	September 1	
	MISSOURI	18,350	44,060				X			X	July 1	
	NEBRASKA	State does not have this information.				X				X	October 15	
	NEW HAMPSHIRE	28	6,300				X			X		X
(7)												
	NEW MEXICO	State does not have this information.					X		X		September 1	
(8)												
	NORTH CAROLINA	83,833			3,751	X				X	October 16	
(9)												
	OHIO	4,499	106,832	20,552	10,439		X			X	September 30	
(10)												
	OREGON	1,861	27,800	260	12,000		X			X	September 1	
	RHODE ISLAND		9,636				X			X	December 31	
	SOUTH DAKOTA	483	6,085	3,464	1,092			X		X	September 1	
(11)	TEXAS	See Notes.				X				X	September 1	
(12)	VERMONT	State does not have this information.						X	X		August 31-January 1	
	WASHINGTON	8,000	56,050			X				X	August 31	
	WISCONSIN	5,040	27,860		540	X				X	September 1	
		790,637	1,718,961	73,178	31,834	26	21	3	11	39		5

Notes

(1) State law prohibits holding kindergarten for more than four hours per day except in a few districts. Therefore, full-day kindergarten is rare in California. A child must be at least four years and nine months of age on or before September 1 to enroll in kindergarten.

(2) State provides full-day kindergarten funding for only 2,313 students based on a 1975 law which provided funding for full-day kindergarten. Districts cannot claim full-day funding for more students than they had in 1975.

(3) Approximately 35 of 166 school districts offer extended-day or full-day kindergarten.

(4) Full day is classified as extended day.

(5) Upon annual application and approval by the State Superintendent of Public Instruction, school districts are authorized to have kindergarten students in two sessions daily.

(6) Starting age will be moved back one month each year until uniform starting age is June 1.

(7) Kindergarten children attending a minimum day of 150 minutes are factored into the state equalization computations in exactly the same way as other elementary school children.

(8) Local schools may decide to admit younger children, but they may not deny entrance to those who comply with the December 1 rule.

(9) State finances 30 to 90 full days. The number in the "half-day" column includes those who attend 180 half days or 90 full days. The number in the "other" column includes those attending from 30 through 89 full days or the equivalent in half days.

(10) State mandates schools to offer half-day kindergarten with funding at a full-day rate.

(11) There are 262,485 children who attend kindergarten in Texas. It is the local option of each school district to offer either half- or full-day kindergarten. State figures reflect only the total enrollment.

(12) The total kindergarten is 5,728 children. The state does not collect information by kindergarten organization. State aid monies are provided for total budgets, not just kindergartens.

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6. Teachers can pace instruction to help children acquire new skills and concepts with ample time to practice, apply, and consolidate new learning.

7. Teachers can provide more effectively for the individual needs of children who have different home and preschool experiences.

8. Transportation can be provided before and after school, eliminating the need for midday transportation.

9. Parents prefer full-day kindergarten and will enroll children in schools that offer the program.

Newspaper Articles

Evansville initiated half-day kindergarten in 1899, and no change in the half-day kindergarten, full-day grades one through twelve pattern had occurred since that time. When the request was made for a pilot program in four schools, several concerns were expressed. These included the cost (Indiana provided no reimbursement for full-day kindergarten), the concern that this was assuming responsibility for child care that parents should have rather than an attempt to provide a more effective kindergarten program, and that there would be too much pressure on five-year-old children in the full-day program. Pages 5 through 23 contain copies of newspaper articles associated with starting full-day kindergarten in Evansville that are reproduced with permission of The Evansville Courier and The Evansville Press.

These articles reveal the high interest and concern about starting full-day kindergarten. The concerns focused on student achievement, parent and teacher acceptance, attitudes, self-concept, attendance, participation in school activities or lack of participation due to "burnout," and the content of the school day.

Full day proposed for kindergarten in public schools

By Patricia Swanson
Press Staff Reporter

Stockwell, Tekoppel and Thompkins schools are the proposed sites for a pilot all-day kindergarten program being considered by the Evansville-Vanderburgh school administration.

Jack Humphrey, elementary education supervisor for the schools, said two factors led to the decision to try the program: The availability of space at the three schools and the problems half-day kindergarten sessions pose for working parents.

The plan must be approved by the school board Wednesday before it can go into effect.

Humphrey said most of the youngsters at the schools will continue to attend only a half-day, either morning or afternoon, as at present. However, up to 20 students at the schools could be in the pilot program.

Stockwell now has 42 pupils in kindergarten, Tekoppel 52 and Thompkins 44. In general, 64 youngsters can be accommodated in the two sessions of kindergarten at each school.

Humphrey said working mothers and single-parent families have complained about the half-day kindergarten session and the problems it presents in getting children from the babysitter to school or vice versa.

Some families, he said, are unable to make the necessary babysitting arrangements so their children do not attend kindergarten at all. Kindergarten is not required in public schools.

Humphrey said full-time kindergarten sessions do present some problems, such as arranging a curriculum that will meet the needs of both full- and half-day pupils and arranging lunch periods and bus loads. However, he said he believed the difficulties could be ironed out.

"We are not starting a babysitting service," he emphasized, adding that the program will be set up to provide teaching of basic skills, not "just fun and games."

Humphrey said he knows of no other full-time kindergarten program in any public schools in the state.

The Evansville Press
September 18, 1978

Board cautious, but OKs study of kindergarten

By NANCY HUTCHINSON

The possibility of offering all-day kindergarten sessions at three local public schools will be studied by school administrators and teachers to determine whether the program — aimed at families which do not have a parent home during the day — should be implemented here.

Before the study was approved by the School Board Wednesday, however, several members cautioned that the program should emphasize curriculum and not merely provide custodial care.

As explained by Dr. Jack Humphrey, director of elementary education, the study would examine the feasibility of beginning a pilot program at three schools in different areas of the city: Stockwell on the East Side, Tekoppel on the West Side and Thompkins on the North Side.

Humphrey said scheduling for such things as lunch periods and bus transportation would have to be worked out.

Kindergarten pupils attend half-day sessions at present, in either the morning or afternoon.

School officials haven't set a date for implementing the program, should it be approved by the School Board at a later date.

Institutionalization feared

Board member Arthur Aarstad said he has some reservations about the all-day kindergarten, particularly if the emphasis is on the day care rather than the educational aspects of the program. He said he also was concerned about the effect an all-day session would have on a young child and the tendency to "institutionalize childhood."

Board member Martha Schmadel, noting that she was in charge of Evansville's federally funded day care during World War II, said she detected no ill effects on the longer day on the young children. "We didn't have any problems from a psychological standpoint," she said, adding that the children's mothers often worked long days in the local shipyards.

The possible need for the all-day kindergarten sessions was brought to the attention of school officials, said Humphrey, after they noticed that many parents have difficulty getting their children home when school is dismissed early on a "snow day."

Humphrey said school officials are concerned that some parents may not be sending their children to kindergarten, which is not required under Indiana law, but instead wait a year and then send their children to the all-day first-grade sessions.

Also expressing reservations about the study was board member Lonie Freeman, who said he felt the plan should not be limited to only three schools but should include all schools where enrollment would permit an all-day program. As many parents as possible should be allowed to participate in the plan, he said.

The all-day program would involve more than 300 students, according to estimates, with no extra expenditures required to fund the expanded school day.

Evansville Teachers Association President Mike Roberts said later that the all-day kindergarten "is worth a study" but should be a true pilot program, meaning that needed changes should actually be made and important questions — such as the readiness of 5-year-olds for a full day of educational experiences — should be thoroughly examined.

The Evansville Courier
September 21, 1978

Board ok's plan for test of all-day kindergarten

School board members have reservations about a proposal by the Evansville-Vanderburgh County school administration to try a full day of kindergarten at three schools, but gave approval for the experiment anyway.

The Evansville-Vanderburgh schools have kindergarten for only a half-day now.

At a school board meeting yesterday, Jack Humphrey, director of elementary education, presented the experimental plan.

Arthur Aarstad, an educator and board member, said he is concerned about young children becoming institutionalized by the longer sessions.

Board member Lonie Freeman said if the program is to be tried it should be for all schools with kindergartens.

Mike Roberts, president of the Evansville Teachers Association, said he thought the program is "worth a try."

Humphrey proposed a pilot program at three schools — Stockwell on the East Side, Tekoppel on the West Side and Thompkins on the North Side.

The Evansville Press
September 21, 1978

All-day sessions for kindergarten ok'd at 4 schools

Kindergarten pupils in four schools will have a chance to attend all-day sessions next semester.

Tekoppel, Thompkins, Glenwood and Stockwell were selected by the Evansville-Vanderburgh school board last night as target schools for the pilot program. Originally, the pilot program was to be for 18 months, beginning next semester.

However, board member Lonie Freeman asked for a shorter pilot period, saying, "I don't think we should study it to death. Let's study it for six months. If it's a good program, we should be able to determine that in six months."

He later added, "I don't think there's any doubt a kid in school all day is going to learn more than those in half days."

Jack Humphrey, director of elementary education, is to report on the program at the end of the semester, although the 18-month pilot study probably will still be followed.

Under the plan, kindergarten pupils in the four schools will have their choice of half-day or full-day sessions. If possible, all youngsters in the half-day program will attend only in the morning. Full-day pupils will have both morning and afternoon sessions.

Norma Kacon, executive director of the Evansville Teachers Association, said kindergarten teachers are divided about the plan.

Many, she said, are enthusiastic, looking upon it as a way of providing better programming for youngsters at a more relaxed pace. Others feel an all-day program is too long for 5-year-olds, she said.

In other business, the board:

—Decided to seek federal funds for a program for gifted and talented children in grades three through six. The funds would be used to hire substitute teachers to take over classes for "super teachers" now in the system. These "super teachers" would work with the gifted students once or twice a week, perhaps taking them to places such as the museum.

—Expressed a desire to start a program to provide reading programs for preschool children in the inner city. A $25,000 federal grant sought by the school corporation would provide materials and a substitute so regular teachers could work with parents of preschoolers.

The Evansville Press
January 16, 1979

Are we really ready for full-day, countywide kindergarten?

To the Editor of The Courier:

A full-day kindergarten program may be initiated countywide as early as September, 1979. The pilot program that is now in effect at Stockwell, Tekoppel, Glenwood and Thompkins schools began Feb. 1, 1979. As presented, this pilot program was to be in effect for 18 months. I have observed the pilot program at Thompkins and have spoken at length with the kindergarten teacher and principal there. I am most impressed with their program development. The kindergarten enrollment for the schools involved in this pilot program ranges from 54 pupils at Tekoppel to 39 students at Thompkins.

But I am very concerned should this program be adopted countywide in the fall of 1979. My major concern is the length of the pilot program. There has been no "September experience" included in the pilots thus far. How will 5-year-old children react to an initial full day of school, school lunches and bus transportation twice a day?

How will this program fare in kindergartens with larger enrollments? Will there be adequate certified and licensed personnel? Is there a definite set ratio of pupil per certified teacher? Can the present certified personnel be totally prepared for this drastic change in such a short period of time?

Indeed, can all the school buildings be ready for this program so soon? Will there be ample tables, chairs and enrichment materials for every student?

If the School Board should decide that the school system undertake this marathon task in this limited time period, is there enough money (not already allotted to other areas) to cover the additional expenses?

I do not know the answers to these questions. I am appalled at the lack of information we parents have received concerning the pilot program. On Wednesday, May 9 at 2:30 p.m. the School Board will meet at the school administration building in the Civic Center complex. At this meeting Dr. Humphrey, superintendent of elementary education, is scheduled to present a progress report on the full-day kindergarten pilot program.

Three and one-half months is too brief a test period to provide conclusive results. I urge Dr. Humphrey to recommend the continuation of the pilot program. I urge our School Board to continue with the pilot program and not commit our school system and our children to a countywide, full-day kindergarten program in September, 1979.

MRS. PAULA S. SILLS
Evansville

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The Evansville Courier
May 2, 1979

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Parents want more study of all-day kindergarten

By NANCY HUTCHINSON
Courier staff writer

Some Evansville parents who have reservations about all-day kindergarten classes plan to ask the School Board for assurance Wednesday that the pilot program begun in January at four elementary schools won't be implemented on a countywide basis before September 1980.

The board already has voted to continue the program at Thompkins, Tekoppel, Stockwell and Glenwood schools on an experimental basis next year so that the longer day's effect on youngsters can be determined more accurately. However, rumors have been circulating recently in several other schools that the all-day programs would be initiated in all local public elementary schools this fall.

Paula Sills, the mother of a preschooler who will enter kindergarten in 1980, said she recently sent out copies of a letter to parents of children in several local nursery schools and asked them to let school officials know if they oppose implementation of an all-day kindergarten in all elementary schools this fall. She also has organized a group called the Concerned Parents of Preschool Children.

About 95 percent of the eligible pupils at the four pilot schools are attending the all-day classes, and school officials say the response from parents there has been overwhelmingly favorable. School officials recently surveyed parents at the four schools about their opinions of the all-day classes, according to Dr. Jack Humphrey, director of elementary education for the Evansville-Vanderburgh School Corp. However, he said, administrators have no plans to recommend that the program be expanded to all elementary schools this fall.

He said he will present a progress report on this semester's program at Wednesday's School Board meeting. The report had been requested by the board when the pilot program was approved in January.

The Evansville Teachers Association last week sent a letter to board members asking that the all-day kindergarten program be studied further and not expanded on a district wide basis before 1980-81. The effect of all-day classes on beginning pupils — as opposed to those who have attended school a semester already — and the facilities, personnel and other program needs must be assessed thoroughly before the program can be expanded, according to ETA Executive Director Norma Kacen.

Mrs. Sills said she is neither for nor against the concept of an all-day kindergarten but is concerned that it must be studied further before being implemented in all elementary schools

"I believe there are many children who are ready for all-day kindergarten," she said. "I just want to be sure the program is ready for them."

She said she doesn't believe school administrators have been trying to push the idea of extending the preschool program in the fall.

Sandy Heisloot, a Cynthia Heights district parent who has five children, including a preschooler, said she is concerned about all-day kindergarten expansion plans "because I don't think kids that age should be pushed into an all-day environment."

She said she feels parents haven't been given enough opportunity to express their opinions of a year-round all-day program, and she favors an extensive survey similar to the poll taken recently about parents' opinions of snow day policies.

The kindergarten program needs another year of study before a decision is made on expansion, said Mrs. Heisloot, noting that she would prefer having a first semester of half-day classes and a second semester of all-day classes rather than a year-round all-day classes.

The Evansville Courier
May 3, 1979

Board to hear all-day-kindergarden report

By Patricia Swanson
Press Staff Reporter

A woman who has been concerned about the possibility of expansion of all-day kindergarten classes to more schools this fall plans to speak about the issue at tomorrow's 2:30 p.m. school board meeting.

Paula Sills, who has a child who will enter kindergarten in 1980, said she is concerned about expanding all-day kindergartens before enough information is obtained on how the present four-school pilot project will work in the long run.

Early this year the board voted to introduce all-day kindergartens at Tekoppel, Thompkins, Glenwood and Stockwell schools on a voluntary basis. About 95 percent of the eligible students have enrolled for the all-day sessions.

Mrs. Sills said, "I'm not opposed to a full-day kindergarten program; I'm not in favor of a full-day kindergarten program. I just think there is not sufficient data to base an opinion on."

Jack Humphrey, elementary education supervisor, is expected to make a report on how the program is progressing. School officials have said that no decision on whether to expand the program has been made. However, rumors continue to circulate that the program is going to be expanded this fall.

Principals are reporting that parents are calling them, asking if incoming 5-year-olds will be attending school all day next year. School board members also have been receiving calls.

Mrs. Sills said she is concerned about two major issues involving all-day kindergarten: How will children who have never been in school before adjust to having to be in class all day long and is all-day too long to expect a child to remain attentive.

The experimental program started in the second semester so youngsters who were in it had already had one semester of half-day kindergarten.

The pilot program was brought to the board as a surprise; board members privately said they had not heard anything about the idea until they were asked to approve the four-site pilot project.

All-day kindergartens will not be the only controversial subject on tomorrow's agenda. Also expected is the result of the school survey on snow day policies.

The survey was sent to every home in the school system. It sought opinions on the present policy of closing schools when buses can't make it and offered alternative ideas—opening schools an hour early or opening with no bus service.

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The Evansville Press
May 8, 1979

BEST COPY AVAILABLE

Kindergarten plan will be continued

The Evansville-Vanderburgh school board yesterday pressed elementary education supervisor Jack Humphrey on the purpose of all-day kindergartens before voting unenthusiastically to continue the present pilot program in four schools.

The debate began when Humphrey presented a progress report on the program, begun in January at Stockwell, Tekoppel, Glenwood and Thompkins schools. Humphrey said 188 students are eligible for the optional program and well over 95 percent have participated in it.

Humphrey said the program is working well and teachers and parents were pleased with it.

"The word I think of most about the program is happiness," he said.

However, Paula Sills, a former teacher who will have a child entering kindergarten at Scott School in a couple of years, questioned that statement.

"Happy compared to what?" she said. "Happier than youngsters in a half-day program? Happier than youngsters in a day care center? Happier than youngsters at home?"

Mrs. Sills, who became interested in the program, she said, when she heard rumors the program was to be expanded, charged that "the all-day pilot program is a hastily prepared day care program that was recklessly converted to a supposedly optional all-day kindergarten."

Mrs. Sills said Humphrey told her there is no scientific evidence available that shows whether an all-day kindergarten is better than a half-day one but "our educational hunches are as good as anybody else's."

Mrs. Sills contended that school board minutes show that Humphrey in January cited five written reports that support the all-day kindergarten. She said, "Investigation shows that two of these studies deal with an extended-day program, in other words four and one-half to five-hour days; one study was never piloted; one program I cannot find as an operating program; and one program does have an implemented full-day program that sets a maximum number of students per class of 25. I don't see how these five studies support an all-day program."

The Evansville classes range up to 51 pupils with the use of teachers' aides.

Mrs. Sills also questioned whether the program was truly optional. She noted that science, math and social studies were all being taught in the afternoon with half-day students getting a smaller math workbook than the full-day pupils.

"I intellectually reject the supposition that science, social studies and math are optional supplemental enrichment programs. Indeed, it is the afternoon program of the first grade."

Board members then began to question Humphrey in depth.

"Just what is the purpose of the all-day kindergarten?" Ken Quakkelaar asked.

Humphrey said it was a readiness program to help children prepare for first grade.

"Are our children not ready now under the half-day program?"

"Oh, no, they have always done well and are ready. But you are talking about the glob of children. There are always some who aren't ready."

"And that is always going to be true, isn't it?"

"Yes, of course."

"Then what are we really trying to accomplish?"

School superintendent Victor Fisher said because of television programs such as Sesame Street youngsters need a richer curriculum in kindergarten than in the past.

Asked about whether children in a full-day program do better later on, Humphrey said there are no statistics either way.

Quakkelaar, referring again to statements that kindergarten is designed to teach readiness, said, "It seems to me we have a solution looking for a problem."

It was suggested that parents be surveyed to see if they wanted their children in a full-day program.

"I don't think this is the sort of issue that should be a matter of public opinion," board member Arthur Aarstad said. "I think this is an educational matter. Either it is worthwhile educationally or it is not. It's not a matter of convenience for parents. I think many parents would opt for an all-day kindergarten at public expense rather than a babysitter or day care center."

A woman in the audience complained that aides were doing much of the teaching in a large class. Humphrey said the aides work under the direct supervision of the teacher.

"But with 25 in the class in a half-day program," the woman responded, "I think my child gets more attention from the teacher than if he were in with 50 other kids in a full-day program."

Applause greeted many of the comments by those opposed to the all-day program.

Board member Lonie Freeman asked if voting on the issue could be delayed so members could study some of the material Mrs. Sills had brought. Fisher said kindergarten registration is under way now and parents need to be told if their youngsters will be in half-day or full-day sessions. Time is also needed to set up staff requirements, he said.

The program is to be continued at the four schools on an experimental basis for the time being with the possibility of some modifications if necessary later on. Parents who are enrolling their children in kindergarten now also will be asked if they want a full or half-day program although there is no plan at present to expand to other schools.

The Evansville Press
May 10, 1979

Opinion

Kindergarten

Some parents and teachers are concerned that the school system might be moving too quickly to bring about all-day kindergarten on a districtwide basis.

There is currently an all-day pilot program at four schools. It has been in operation since February, ostensibly for a three-semester study.

But rumors began to circulate recently that the school corporation was moving to expand the program sooner than originally planned. School officials say that is not so, but the Evansville Teachers Association became sufficiently concerned about the rumors that it last week sent a letter to School Board members asking that the program be studied further and not expanded districtwide until the original 18-month study period was complete.

What the truth of these rumors might have been, we don't know. It could have been a misunderstanding, or there could have been some official basis to it in the school corporation and/or the School Board.

Whatever the source, we would agree with the concerned parents and teachers that no action to expand the kindergarten program should be taken until it has been adequately studied - especially in terms of the effect of all-day classes on preschool children and the system's ability to properly handle an expanded program.

Great care should be taken by the School Board to make sure that the program, if fully implemented later, becomes a legitimate kindergarten with academic and social preparation for elementary school - not a tax-supported day-care operation.

Kindergarten

The School Board has approved a study to determine the feasibility of all-day kindergarten at three schools, while cautioning that any such program should be geared to learning rather than institutional babysitting.

For its part, the Evansville Teachers Association believes such a program could have merit, but cites a need for the study to address itself additionally to questions such as the readiness of 5-year-olds to cope with a full day of educational experience.

The apparent concern of both groups to the question of all-day kindergarten and, more specifically, to the basic purpose of such a program and its effect on pre-school age children is commendable and creates a refreshing atmosphere in which the matter can be examined.

Can we justify need for all-day kindergarten?

To the editor of The Press

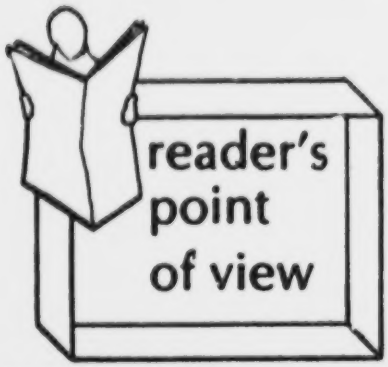
As the mother of three children, one soon to start kindergarten, I have watched the unfolding of the question of all-day kindergarten with more than casual interest.

When the idea first was presented to the school board and then rushed to the pilot-program stage, I was concerned for several reasons: The inadequate time for public discussion or school board deliberation, the paucity of data presented dealing with similar programs, and especially the dearth of justification for expanding a half-day kindergarten program administrators already seemed to feel was successful.

After the May 9 school board meeting, which reviewed the progress of the pilot program, I am still concerned. Expressing his own concerns about the need for all-day kindergarten, board member Ken Quakkelaar said, "It seems to me we have a solution looking for a problem." What problem or problems will be solved by having all-day kindergarten, and is the solution of these problems a valid enough reason for sending children to school a half-day longer?

Let's agree that present one-way busing for kindergarteners has been a problem for some parents who do not send their children to school because they cannot arrante for other-way transportation. Let's admit that working parents have a hard problem making arrangements for school children enrolled in half-day kindergarten. Let's admit that school administrators have a real problem because decreasing enrollment means decreasing federal dollars.

These are all difficult problems to solve, but separately or together they do not justify sending children to school a half-day longer. Indeed, let's not forget to consider the problems that may be caused by sending children to kindergarten all day. Isn't it important that a young child have ample freedom to structure his own time and accomplish tasks important to his own growth? Increased size of classes and



space limitations may not even really give a child time to be alone with his own thoughts.

Second, do we know that giving children more structured information earlier is really beneficial later? Are we graduating better-educated students or are we simply frustrating many of them or turning themm off after too many years in the classroom?

The main question we must answer is, will all-day kindergarten be educationally worthwhile and verifiably so by accepted educational standards and measurements? Subjective judgments by people who are not concerned primarily with educational benefits of the programs are not enough. And if all-day kindergarten proves not to be educationally worthwhile, let's find other solutions to the very real problems faced by our school corporation.

Let's not stick with the "solution looking for a problem."

MRS. CAROLE ALLISON
Evansville

The Evansville Press
May 24, 1979

Board urged to offer kindergarten options

Any all-day kindergarten program should include an option of half-day sessions for children of parents who prefer the shorter day school board members were told last night by Jack Humphrey, director of elementary education.

Humphrey, who presented a 106-page report on a pilot program in which children attend all-day kindergarten at Tekoppel, Stockwell, Thompkins and Glenwood schools, said children who attended the all-day sessions scored "significantly higher" on tests than children in half-day classes. The four schools have had full-day sessions for two years.

But he said parents still should be able to decide whether they want their children to go a half day or full day. He recommended schools with all-day kindergarten programs also offer half-day sessions and that parents also have the option of sending their children to nearby schools that have only half-day sessions, if they prefer.

The board will study the report, which Humphrey termed "the most comprehensive in the nation on all-day kindergartens, as far as we know." A decision on whether to continue the all-day program, or expand it, is expected some time this summer.

Humphrey, in presenting the report, noted that school systems throughout the country are experimenting with various types of all-day programs.

Tests at the four schools where the pilot program was operated, he said, show that kindergarteners are testing "significantly higher" than students at four other Evansville schools with half-day programs and similar socio-economic backgrounds: Culver, Daniel Wertz, Evans and Hebron.

First graders who were in a full-day program a year ago tested dramatically higher on reading tests than the national average, Humphrey said. The special test was not given to the four control schools.

More than 90 percent of the parents who had children in the all-day program approved of the concept, according to a survey included in the report.

Fifty-two percent of parents of children in half-day kindergartens would prefer full-day classes, according to a survey included in Humphrey's report. The report also said that teachers of all-day kindergarten were unanimous in endorsing the program; first grade teachers at the schools were undecided about the value.

Several parents who had children in the all-day program praised the idea, saying their children had advanced more than they expected in the year. Typical was Don Payne, who had a son at Thompkins this year. Opposition, he said, was based on "fear of the unknown. I endorse this heartily for all children in the system."

Paula Sills, who had led opposition to the program since it was begun two years ago, said she had not been able to see a copy of the report ahead of time and "I have five speeches here (written before the meeting) and I don't know which one to use."

As she searched through the speeches to find the appropriate one, board president Lonie Freeman, aware that any decision on the program is going to generate criticism, commented, "Save them. You'll probably be able to use one of the others at a later date."

William E. Laudeman, asked that the board offer full-day programs next year because "I'm the father of a 5-year-old who is in a private all-day nursery school 8 to 10 hours a day (at Central Methodist Church).. I want him in a full-day kindergarten so he can make friends with children in the school near him. If you don't, I'll have to pay to put him in a private kindergarten."

A decision whether to continue the pilot program at the four schools will be made by the board this summer, officials indicated privately. However, if the program is expanded into other schools, Humphrey has recommended that that decision be made by January with classes not beginning until the following September.

The Evansville Press
June 19, 1980

Some board members favor expanded kindergarten program

By Patricia Swanson
Press Staff Reporter

Members of the Evansville-Vanderburgh school board are thinking of expanding the all-day kindergarten program at four schools to a few others — although they may have second thoughts when they realize the state will provide no additional financial assistance for the program.

A survey of board members today indicated that many of them favor some expansion of the program, begun two years ago as a pilot project in Glenwood, Tekoppel, Thompkins and Stockwell schools. However, some board members favoring the expansion said they assumed the all-day program would mean additional state aid.

But according to Danny Costella, a finance specialist with the state Department of Public Instruction, kindergarten students entitle a local school corporation to only half as much aid as students in other grades, regardless of whether they go half a day or a full day.

School board members, who are scheduled to consider the kindergarten program at a board meeting at 2:30 tomorrow afternoon at the School Administration Building, said they were impressed by a report at the last board meeting that showed test scores of youngsters in the four pilot schools were "significantly higher" than at other schools. The report was made by elementary education director Jack Humphrey

Although school officials haven't released figures by school, sources said average test scores at some schools, particularly those with a large number of disadvantaged youngsters, were much below the national average.

Board member Elaine Amerson said today, "We are looking very carefully at what we know from the study and evaluating it. We must have a way to approach the problem of very slow beginning students, and the results show very significant improvements in most areas. Cost cannot be the major concern."

She said 90 percent of the parents whose children were in the full-day program want it continued and more than 50 percent of parents in the other schools also endorse the idea.

Martha Schmadel said Humphrey's report "definitely justifies" the program. She said she would like to see the all-day program expanded to a few more schools.

Board president Lonie Freeman said he would like to see the program expanded, but is concerned about the financial situation. The board already has cut some programs, such as high school summer school, to meet the budget, and Freeman said that

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More about

Kindergarten program

Continued from Page 1

"we'll have to look at the finances before we can do anything."

Carl Lyles, who was one of the members assuming there would be extra state aid, said, "I'd like to enlarge (the program), yes, but certainly all-day kindergarten will not be in every school this fall."

New board member Paul Niemeier also favors expanding the program, but he said he would have to take a close look at the cost.

Member Arthur Aarstad said he's also concerned about pupil "burnout." Do youngsters who are in an all-day program in kindergarten get bored a few years later and lose interest sooner than other youngsters?

In other issues at tomorrow's meeting, members are expected to set book rental fees higher than last year because of higher book costs and increase the cumulative building tax levy to provide more money for repairs and extensive renovation projects.

The Evansville Press
July 1, 1980

Kindergarten expansion possible

By DAN CONSIDINE
Sunday staff reporter

The Evansville-Vanderburgh School Corp. board of trustees might consider expansion of the school system's all-day kindergarten program Wednesday.

Jack Humphrey, director of elementary education, will present a report on the all-day kindergarten program at the 2:30 p.m. meeting. However, Humphrey and other E-VSC officials refused to say whether they will recommend expansion.

"There will be an item on the agenda concerning the all-day kindergarten program. This is a board item, so I can't release any details. All I can say is that we've been receiving a lot of favorable information about the current all-day program," Humphrey said.

But a check with board members found that between two and four schools may be considered for expansion of the program. Board member Lonie Freeman said he thought two or three schools would be considered. He mentioned Harper School as a possiblity. Board member Suzanne Aiken said as many as five schools might be considered, although she didn't know which schools might be involved.

Freeman said it is likely that schools in districts that don't have an all-day kindergarten would be among candidates for expansion. Six schools — Tekoppel, Glenwood, Thompkins, Stockwell, Lincoln and Cedar Hall — now have all-day kindergarten. Half-day kindergarten is offered at the other 24 elementary schools.

Albert Umbach was the only board member who said he would likely vote against an expansion. Other board members said they favor an expansion of the program, provided enough money could be found. Board members were not sure when a vote would be taken on expansion because they had not seen Humphrey's report.

"I expect we will add more schools to the all-day kindergarten program. I don't recall how many schools are being considered," said Elaine Amerson, board president.

"But the data we've been receiving indicate that the all-day kindergarten program has been very successful. I believe the board will be favorable toward an expansion."

Mrs. Aiken believes expanding the program is needed because many Evansville residents are now seeking private all-day kindergartens.

She said all-day kindergarten also would solve the current transportation problem with half-day kindergarten. Parents now must supply transportation for students attending half-day. In the full-day sessions, kindergarten students are permitted to ride the bus with other students.

Board member Carl Lyles said the school system needs to "move in the direction of offering expansion of the all-day kindergarten."

However, Umbach thinks expanding all-day kindergarten may be a mistake for which taxpayers will end up paying.

"I think kindergarten is vital, but I have reservations about the all-day schedule. One of the main items is money. I don't know if we can afford all-day kindergarten," Umbach said.

The last expansion of the program, adding Lincoln School, cost the E-VSC $24,000.

Umbach also questioned academic effectiveness of all-day kindergarten.

"I just feel that the interest level of 5-year-old children is probably high for half a day. I think the rest of the day might wind up being spent on discipline and keeping their attention," Umbach said.

"I think all-day kindergarten could easily slip into a day-care service. I know day care is needed, but I feel that the taxpayers shouldn't foot the bill. All-day kindergarten could also hurt our other programs and lessen our ability to pay competitive wages to teachers."

However, Humphrey has presented reports to the board showing that students attending all-day kindergarten have scored significantly higher on basic skills tests than students in half-day programs.

But Humphrey's findings have been questioned by opponents of all-day kindergarten because the director has been among the main designers of the all-day program, the first of its kind in the state.

Norma Kacen, executive director of the Evansville Teachers Association, declined comment on possible expansion of the program because she had not received any details of Humphrey's upcoming report.

The Sunday Courier and Press

Five more schools will offer all-day kindergarten class

By NANCY HUTCHINSON
Courier staff writer

All-day kindergarten classes will be offered at five additional public elementary schools in 1982-83.

The School Board's decision to expand the program to include Cynthia Heights, Delaware, Harper, Hebron and Lodge schools means that just over one-third of the Evansville-Vanderburgh School Corp.'s 30 elementary schools will offer all-day classes for their youngest pupils next year. Six schools — Cedar Hall, Glenwood, Lincoln, Stockwell, Tekoppel and Thompkins — currently offer the classes.

The popularity of the all-day kindergarten classes and the need to attract more youngsters to the public schools in an era of declining enrollments were two of the main arguments cited Wednesday by several board members and by Jack Humphrey, director of elementary education, who recommended expanding the program.

"At the present time we have 339 (kindergarten) children enrolled in schools that offer full-day kindergarten," said Humphrey. "Parents have the option of choosing full-day or half-day kindergarten. This year a total of 338 children are attending full-day and one child is attending half-day."

Because kindergarten attendance is not required in Indiana, children can also begin school as first-graders.

Humphrey noted that from 1969-77, kindergarten classes were larger than first-grade classes. School officials believe many of the youngsters were enrolling in public school kindergartens, then transferring to private schools — which did not offer kindergarten at that time — as first-graders.

Full-day kindergarten gives pupils more time to develop their language, cognitive and other skills, said Humphrey, "and our extensive records indicate that the full-day experience is helpful for children."

From a financial standpoint, the loss of potential state revenue from local pupils who don't attend the school corporation translates into almost $929 per child annually, or $11,612 over the 13-year period from kindergarten through 12th-grade, Humphrey said.

Adding all-day kindergarten at five more schools next year will require an additional five teachers and 5.5 assistants, plus supplies and equipment, at a cost of $160,000, school administrators estimate. The money will come from the instruction account of the school system's general operating fund.

The only member who voted against expanding the program, Albert Umbach Jr., questioned whether the school system could afford to add to its kindergarten program when, because of tight finances, the money is needed for programs in the other 12 grades. He also noted the need to keep teachers' salaries high enough so that they won't leave the school system for more lucrative jobs.

The cost of expanding full-day kindergarten must be balanced against the probability that the school system will get more back farther down the road, countered board President Elaine Amerson, referring to the increased state revenue granted to the school system for each additional pupil enrolled.

Member Arthur Aarstad said he realized economics are a concern, but the primary issue should be: "Are we meeting the educational needs of the children?" He suggested school administrators study the academic performance of first- through third-grade pupils who attended all-day kindergarten.

"There doesn't seem to be any consensus," said Aarstad of the all-day kindergarten. "I think the jury is still out."

He also questioned whether students would "burn out" on school because they began attending full-day classes as kindergarteners.

Humphrey replied that many youngsters today have attended full-day Head Start, day care and nursery school programs as 3- and 4-year-olds before they enroll in kindergarten.

Member Suzanne Aiken, citing the popularity of all-day kindergarten, said the school system should offer the program if there is a need for it and if the people want it.

In response to the board members' questions, Evansville Teachers Association (ETA) President Mike Roberts said teachers have differing opinions about the effectiveness of all-day kindergarten. Some favor it, he noted, but others question the cost or doubt its long-range value for pupils beyond the third- or fourth-grade.

The full-day kindergarten program is, the only one of its kind in the state and one of only a few in the nation, according to local school officials. Some rural systems, because of transportation limitations, offer either one semester of all-day kindergarten or all-day classes three times a week throughout the year.

The Evansville Courier
May 13, 1982

All-day kindergarten program discussed in closed-door session

By Patricia Swanson
Press Staff Reporter

The school board met in executive session yesterday to discuss the financial implications of expanding the all-day kindergarten program to five more schools.

Discussions included how much it would cost to implement the expansion and how much revenue schools lose from students going to private schools where all-day programs are available.

Board members indicated the kindergarten program was brought up in executive session because discussions centered on how the program expansion would effect upcoming negotiations.

However, legal counsel for the Hoosier State Press Association said the meeting was improper under the state's open meetings law, even though the matter then was discussed in open session.

In the public session, the board voted, 6-1, to add Cynthia Heights, Delaware, Harper, Hebron and Lodge schools to the program next year. Cedar Hall, Glenwood, Lincoln, Stockwell, Tekoppel and Thompkins already offer the all-day program.

Of prime consideration, the public discussion showed, was the popularity at the existing schools and the loss of state aid for students who aren't in the public schools.

Every kindergarten student in a private program, the board was told, costs the Evansville-Vanderburgh district about $450 in state aid. If students remain in the private schools for first grade, the state aid loss is $929. (The state pays only half the amount for kindergarten students as for all others.) For an entire school career, the loss is $11,625.

With declining enrollment and tight budgets, the board wants to get as much money as possible in state support.

Board president Elaine Amerson defended the executive session before the meeting, saying discussion there concentrated on the effect the expansion would have on upcoming negotiations with teachers. Expansion would cost about $160,000 from the general fund, the same area salaries come from.

"There was no attempt to hide anything from the public," she said. "We had a full discussion on the floor to including audience participation. There was no intent to withhold any information."

But Richard Cardwell, legal counsel for the state press group, termed that argument "ridiculous. Anything a board does has an effect on the budget, even what they pay for chalk.

"The budget process is supposed to be open," he said.

Negotiations legally can be discussed privately, he conceded, but said discussing the effect of a policy matter — "and this is obviously a policy matter" — on money available for negotiations is not.

Board members also indicated they felt the session was legal since they also talked about the staffing of the all-day programs. They said personnel was a permissible issue for executive session.

But Cardwell said personnel, except under specific circumstances, is not grounds for the executive order. He said explanations given for the meeting yesterday are "absolutely inadequate."

School attorney Jeff Frank declined comment, except to say that he believes "Mr. Cardwell is in error."

The proposal passed in the public meeting with only member Al Umbach voting against it. The discussion, he said, "convinced me even more than before" to oppose the plan both because of the money and the fact that no conclusive evidence exists of its educational benefits.

Special projects coordinator Jack Humphrey said teachers he talks to generally seem to support the program, and "the children as a whole are progressing well."

Parents have been particularly happy with the all-day approach, he said. Kindergarten enrollments have grown in those schools with the all-day kindergartens with classes larger than in the first grade. In most other schools, the first-grade classes have more students than the kindergartens.

Humphrey said school officials speculate that many working mothers whose children should attend schools without a full-day program, enroll their children in private programs because of transportation and babysitting problems with half-day kindergartens.

Umbach suggested that Evansville Teacher Association members might be unhappy at spending $160,000 on expanding a program when that money could be used for salaries. Member Lonie Freeman retorted that expanding the program means five more teachers will remain on the payroll, and the teachers should appreciate keeping members on salary.

But ETA director Norma Kacen angrily rejected the statements, saying, "I take umbrage at teachers as pawns in this matter. We do have opinions in other than economic matters. As professionals we are divided in our views on this matter. The evidence to support the all-day program just is not there. The jury still is out. Economic matters are, of course, important, but they are not a determinent of where we stand when services to children are concerned."

ETA president Michael Roberts said Evansville teachers have differing views of the program. Some support it while others have reservations.

Evansville is the only school in the state to have the all-day kindergarten program. Humphrey said no data is available to show the number of such programs in the country. And, he said, some all-day programs run only every other day and are in rural districts in places like Nebraska, rather than a half-day each day, to save transportation costs.

The Evansville Press
May 13, 1982

The kindergarten question: half-day, all-day, none at all

Some adults remember kindergarten as a place where they ate, slept and played. Learning, apparently, was secondary to play.

But today educators are selling kindergarten as a valuable educational program that should be experienced by most children. The curricula at kindergartens throughout the Tri-State vary, but they share a common foundation — making learning fun.

Increasing kindergarten enrollments and demands for all-day programs have raised questions about the history as well as the future of kindergarten. Among the major questions are:

- What is the proper balance between play and learning in a kindergarten?
- Should children attend kindergarten all day?
- Does home education provide a better education than does kindergarten?

Taxpayers have a stake in the growth of kindergarten since they will pay the bill for public school programs.

Private school kindergartens also are growing, particularly full-day programs. But nationwide, few public schools offer them. The growth of private all-day programs has resulted in increasing pressure on public schools to offer full-day programs.

The public's stake in the issue may be whether more kindergarten means better education for children.

A closer look at the development of kindergarten, opinions of parents and current early childhood education trends offers some answers to the questions.

Special Assignment

By DAN CONSIDINE
Sunday staff reporter

Along with the growth in kindergarten programs over the past 30 years has come an increasing emphasis on learning basic reading and math skills. But kindergarten programs have tried to maintain the concept of making learning fun.

For example, in Evansville, public school kindergartens use make-believe characters and situations like Ezzie Elf, who teaches the children how to listen. At Pride Elementary School in Madisonville, Ky., first-graders and kindergarten students learn about manners from Bufford the Big Eared Mouse.

While kindergarten programs emphasize making learning enjoyable, school officials in the Tri-State report that the programs have become more structured during the past two decades.

Cognitive skills such as reading, science and math now are taught in kindergarten, whereas 10 to 20 years ago children were taught primarily physical skills and how to get along with others.

Teachers with special training in early childhood education often teach kindergarten. The teachers usually follow lesson plans, much like teachers in other grades.

Although kindergarten is not mandatory in most states, the number of children attending has risen steadily over the past 30 years. An increase in the number of working mothers and a recognition by educators that kindergarten is a valuable experience are among the major reasons for the enrollment increase.

The growth in kindergarten enrollments has been fueled by the corresponding growth in a whole range of early childhood education programs. Nursery schools and day-care centers are teaching and caring for children from infancy.

In Evansville, these factors have led public school officials to set up full-day kindergartens in six schools. Last week the school board approved expansion of the all-day program to five more schools.

The value of kindergarten and concerns over falling public school enrollment recently led Gov. John Y. Brown of Kentucky to propose making half-day kindergarten mandatory in the Commonwealth. The proposal was later withdrawn after educators throughout the state complained that the governor's proposed budget failed to provide enough money to carry out the program.

There are some parents who choose to educate their preschoolers at home.

Dana and Teresa Sahlhoff of Evansville don't strongly oppose kindergarten or nursery school, they are just carrying on a family tradition by educating their two preschool children at home.

Their 4-year-old son Aaron will not be attending kindergarten next year, and his 5-month-old sister Jennifer is just beginning to enjoy learning from her mother.

"We decided that despite the financial sacrifices, me staying home and teaching our children will provide them with a better education," said Mrs. Sahlhoff, who has a bachelor's degree in interior design from Indiana State University.

"I come from a family of five children and none of us went to kindergarten. My mom took the time to teach all of us and this is something I'm enjoying with my children."

Although Mrs. Sahlhoff doesn't have a scheduled curriculum, she does have a general plan she follows in educating her son.

"We've already started on number concepts and letters. We go to the library quite a bit and take a lot of field trips. I take him to places like the museum and the zoo.

Please turn to Page 5-A

The Sunday Courier and Press
May 16, 1982

Kindergarten From Page 1-A

"The main advantage of teaching at home is that Aaron can tell me what he wants to learn on any given day. In many kindergartens the children have to conform to a schedule. I think it's better to let them explore and learn freely," said Mrs. Sahlhoff.

She is not concerned that Aaron will fail to develop socially by not having attended kindergarten. She said the child has plenty of contact with children in the neighborhood.

Tom and Lynn Weiss of rural Evansville have a 2½-year-old son. They, too, do not plan to send him to kindergarten or nursery school.

"We feel we can give our son a better and more varied education at home than that offered by a school. We are really big on being close to our child. . . He even had a home birth.

"I don't really have anything against kindergarten, but I just feel there is no substitute for instruction from parents," said Mrs. Weiss.

Mrs. Weiss isn't sure her child would fit into a kindergarten class.

"Our son is really very bright and I spend a lot of time with him since I don't work. I give him a lot of freedom to learn. I think he might upset a kindergarten class where he would be expected to sit still for long periods," she said.

Although many of them acknowledge the value of home education, several other parents interviewed believe kindergarten is a valuable experience which is necessary for most families in today's society.

Henderson, Ky., native Charlotte Warren didn't attend kindergarten when she was a child because it wasn't offered. But she has sent three children to kindergarten, and next year will send the fourth.

"I think kindergarten is great for children. You really shouldn't keep the children home unless you can spend a lot of your time with them. It's even difficult for parents who don't work to find enough time to teach children," Mrs. Warren said.

"Keeping children out of kindergarten could be a big disadvantage for them. My 6-year-old went to kindergarten and she already knows how to read. Had she not gone to kindergarten, she would probably be behind the other students. Most kids today have gone to nursery schools or day-care centers so they are even advanced when they enter kindergarten."

Several parents who send their children to local all-day kindergartens also had favorable comments about the value of the program.

Penny Igleheart had two boys who attended half-day kindergarten and now has two girls attending full-day kindergarten at Tekoppel School. She believes the girls have learned more in the full-day program.

"My girls are more advanced now than the boys were at the same age. I think the all-day kindergarten has had a lot to do with their progress. I know some people believe the 5-year-olds can't pay attention for a whole day, but my children really enjoy school all day. Kids have so much energy and few seem to be bored," Mrs. Igleheart said.

Recent visits to Evansville's newest all-day kindergarten at Cedar Hall School substantiated Mrs. Igleheart's statements. Throughout one morning, the students had lessons in math and reading. Few seemed bored. During the afternoon, students spent time with more creative subjects such as music and art.

While learning activities were occurring, the students obviously were having fun. Many seemed to have a close personal relationship with the teachers.

Cedar Hall kindergarten teachers Sharon Levin and Alice Huffman said they teach cognitive skills like reading and math in the morning when the interest level of the children is the highest. Music, art and physical education are often taught in the afternoon when the children may not have as long an attention span.

The teachers said the team teaching approach, in which students move every 20 to 30 minutes from one teacher to another, helps keep the students' interest level high. They added that the all-day program is better because it provides more time to teach subjects such as art and music.

But as Norma Kacen, executive director of the Evansville Teachers Association, pointed out at last week's school board meeting, some teachers and parents are not sold on the all-day kindergarten idea.

Mary Cheany, a teacher of first grade at Culver School, said: "I have mixed feelings about all-day kindergarten. My own child attends a half-day program. I think there could be benefits since teachers have more time to teach. But I think we need to keep classes small and make sure we aren't just baby-sitting kids."

Local parents with children in half-day programs questioned whether most 5-year-olds are able to concentrate all day.

"I think some children do need the extra time. But I also think children need freedom for half a day and if possible need to spend time with their parents. I once taught kindergarten and I'm just not sure most children have the maturity to be ready for a full day of school," said Pam Bushkill.

Evansville educators Jack Humphrey and Wilma Shafer, who specialize in early childhood education, agree with parents interviewed that kindergarten programs still are changing and need to expand.

"Today parents and educators are more aware that children can and do learn in their early years. Twenty or 30 years ago most kindergartens didn't spend much time teaching cognitive skills," said Mrs. Shafer, a professor of education now retired from the University of Evansville.

"Now educators believe that kindergarten needs to include cognitive skills. The full-day program enables teachers to spend time on cognitive skills as well as social and physical skills," she said.

Humphrey and Mrs. Shafer stressed that cognitive skills should not take over the kindergarten curricula. Humphrey said skills such as physical coordination are important in developing cognitive skills like being able to read words from left to right.

Humphrey and Mrs. Shafer said full-day kindergarten programs should grow, but parents should have the opportunity to send their children to half-day programs.

Humphrey, the director of elementary education for the Evansville-Vanderburgh School Corp., said the half-day and full-day programs try to accomplish the same goals.

"Our half-day kindergarten program is similar to kindergartens throughout the country. Few all-day programs exist. The time factor is the main difference in the programs. We can better address all the needs of the children in the full-day program," Humphrey said.

The Sunday Courier and Press
May 16, 1982

Kindergarten to run all day at all schools

By Patricia Swanson
Staff reporter

The Evansville-Vanderburgh school board, in a series of split votes, decided fairness demands that all 20 elementary schools have all-day kindergarten next year.

However, by a 4-3 final vote, the board decided that each of the 10 middle schools will have different programs next year.

The board also raised the possibility of an extra fee — more than $17 a week — for the kindergarten. If offered in all 20 schools, the program would cost about $1.14 million more than half-day programs. Board members said the fee could help offset the extra cost. The state does not pay for all-day programs.

State law forbids public schools from charging tuition. However, they can charge fees.

Some of the most heated discussion at last night's three-hour meeting concerned the middle school programs.

Three of the middle schools — Evans, Thompkins and Plaza Park — will receive a bonus of two additional teachers and $2 more per pupil that can be used for whatever the school desires. The board decided to give the three schools the bonus based on proposals the schools made to offer elective courses next year. The programs in the three schools will cost $153,154.

The other seven still have the option of coming up with "creative, flexible" programs, especially in the electives area, without spending any more money or asking for more staff. Costs of the program at the three schools will be $153,154.

Board member John Deem questioned "letting every middle school go its own way in programs."

Board member Elaine Amerson agreed, but said it was unfair to deprive some students of extra programs — particularly electives — just because everyone can't have them. Others, however, said promoters of middle schools two years ago said they were necessary to eliminate the wide differences in electives programs available at kindergarten through eighth-grade schools.

The vote on the middle schools first was split with Amerson, Ron Goebel and Mimi Nicholson voting for the plan and Gary Smith, Bob Padgett and Deem opposing it. Lonie Freeman had originally passed but to break the tie, he switched his pass to a yes vote, so the measure passed — angering teachers and confusing the middle school study committee that had recommended eliminating the electives period for next year..

The board last month adopted that recommendation and then asked middle school principals to develop ways of putting electives back.

"I'm confused as to what the committee's function is now," said Nancy McCutchan, president of the Evansville Council of PTAs and head of the committee.

Teachers complained that the three schools will have extra staff while the other seven middle schools won't have enough people to have the special in-school suspension program for disruptive students, another recommendation of the committee.

All-day kindergarten also passed with a split vote. At first the board suggested adding it to only four of the six schools that don't have the program — Scott, Vogel, Daniel Wertz and Dexter. One woman in the audience said Dexter didn't want it. It was removed. Another member of the audience said Dexter did want it. It was put back.

In a series of votes, Deem, Nicholson and Padgett voted against including Dexter. Then, on offering it at the four schools, Padgett and Goebel voted no with Nicholson abstaining.

The Evansville Press
June 3, 1986

Editorials

All-day kindergarten

The Evansville-Vanderburgh School Board appears to be working at cross purposes.

The board, motivated by what some members call fairness, voted this week to expand all-day kindergarten to each of the district's 20 elementary schools.

Now, however, the board has the problem of paying for the expanded service, faced as it is with a projected deficit of $3 million even before the all-day kindergarten proposal. One proposal which would be cruelly unfair would be to assess parents wishing to send their child to all-day kindergarten from $15 to $20 per week.

At $60 to $80 a month, all-day kindergarten would be a privilege to some while excluding many other moderate and low-income families whose children might similarly benefit from the experience. Households where both parents work might find it cheaper than hiring full-time babysitters, but all-day kindergarten must be more than a babysitting service to be justified.

The state currently funds only half-day kindergarten, even though the benefits of full-day programs have been documented. The Indiana General Assembly next year is expected to be asked to fund all-day kindergarten.

The best advice to a school board committed to all-day kindergarten is to take its case to Indianapolis, where school pursestrings are controlled.

To permit the general fund deficit to mount will only be unfair to other programs which will have to be cut or eliminated at some future date to balance accounts. And to levy a fee against parents for all-day kindergarten will only be unfair to the many families who cannot afford public education on those costly private terms.

Besides being unfair, such a proposal — all-day kindergarten for those who can afford it — might also be discriminatory, and if the school board doesn't dismantle it, a court of law likely will.

The Evansville Press
June 5, 1986

Kindergarten enrollment increases 4 percent

By Herb Marynell
Staff reporter

Kindergarten enrollment in the Evansville-Vanderburgh school system is up about 4 percent, topping increases in all grade levels at a time when an enrollment decrease was projected and more than $2 million still has to be cut from this year's budget.

Preliminary enrollment figures, taken from Friday's attendance, show 22,708 students, up 218 over last year's enrollment of 22,490 and 316 higher than what school officials had projected for this year.

What is compounding the problem is that larger than usual class sizes are being reported in areas where students need the most individual attention, such as kindergarten, basic mathematics and social studies classes in high schools and advanced reading classes in middle school, said Norma Kacen, executive director of the Evansville Teachers Association.

Kacen said increased enrollment "is not a flash in the pan" and school officials must come up with a long-range plan to solve the problem.

School Board President John Deem said the necessity for a long-range plan is there and he will push "tremendously hard for that" during this school year.

School officials had projected a drop of about 165 students at the high school level this year, but instead enrollment is up 38 over last year's total. Preliminary enrollment for high schools is 6,980, compared to 6,942 last year. School officials had projected enrollment of 6,778 this year.

Preliminary figures show enrollment decreased by 25 at Bosse and 22 at Central but increased by 26 at Harrison, 30 at North and 29 at Reitz. Harrison remains the largest high school with 1,592 students.

Kindergarten, which drew the most vocal complaints last week from parents about class sizes that reach more than 40 in one school, has increased from 1,860 to 1,932 students this year, according to the preliminary figures.

Elementary schools also are up by 104 students, from 13,067 to 13,171 with much of that increase in the first grade level, the preliminary figures show.

Special education classes in the elementary level are up from 621 to 625.

Robert Morgan, assistant superintendent, said officials are double-checking the enrollment figures and some slight changes may result. A complete report on enrollment at each school is to be ready later this week.

School officials are not able immediately to explain the enrollment increases. The growth in kindergarten was attributed to the fact that this is the first year all-day kindergarten has been offered at all elementary schools, coupled with expansion of the before- and after-school day care program at more elementary schools.

Although the school budget for this year is based on a decrease in enrollment, more than $2 million still has to be trimmed. That may be even more difficult now in light of the enrollment increase.

Morgan said the situation "may not be as bad as they (parents) think it is." He said some adjustments can be made but admitted school officials "are not going to solve all the problems they (parents) visualize." He said seven additional teachers, hired because of the enrollment increase, started work today in grades one through five.

The problem of more than 40 students in two of the three kindergarten classes at Caze elementary school last week was eased by switching rooms and reassigning students to keep class size at 40 or less. The school system policy calls for one teacher and one aide for up to 40 kindergarten students before another teacher is to be hired.

The preliminary figures were to be presented to the school board prior to the board meeting later today.

The Evansville Press
September 15, 1986

Kindergarten Program

The following statement written by Evansville kindergarten teachers reflects their position concerning the full-day kindergarten program.

> Today's kindergarteners, with their diverse abilities and experiences, need a program to focus on the overlapping basic skills. The full-day kindergarten program allows for an in-depth exploration of skills in the areas of social, emotional, physical, affective, and cognitive development. It allows children the opportunity to develop responsibility for themselves and their actions.
>
> Children have varied maturational levels and experiential backgrounds; therefore, it is the responsibility of the kindergarten teacher to determine each child's state of development and guide his/her progress accordingly.
>
> We further believe
>
> - That to give a child a good kindergarten experience is to give him/her an excellent start on the road to a satisfying and productive total school life.
> - That kindergarten is not just a preparation for first grade, but that it occupies its own unique position in the child's school experiences.
> - That the fostering or building of a child's self-concept needs attention at an early age. A feeling of worth and belonging developed in early childhood makes for security in coping with the problems he/she encounters.
> - That the kindergarten child should be provided with many and varied experiences. Exposure without pressure must be ever present in the atmosphere of the kindergarten room. The full-day program allows flexibility and minimizes pressure caused by lack of time.
> - That the child who leaves kindergarten happily anticipating the next step in the learning process has had a good experience.

> The sum of these experiences will enable the child to live and work happily and purposefully with others. He/she will begin to understand the world about himself/herself and continue to develop as a worthy and useful human being.

The purpose of the full-day kindergarten program was the same as the half-day program. Both programs were designed to help children grow in cognitive, psychomotor, affective, and linguistic skills. The cognitive and psychomotor skills were taught by direct instruction, for example, by teaching letters of the alphabet using a workbook; the affective and linguistic skills were taught by informal instruction, for example, in interest centers such as a playhouse or in show-and-tell situations. The difference in full-day and half-day programs was the time involved. In the full-day program there was more time for elaboration as each skill was developed. Further, as children succeeded in mastering skills, the additional time allowed students to move forward toward more formal instruction.

The teachers designed their daily schedule according to the needs of their children and the personnel available to them in their building. Some schools were able to schedule specialized teachers to teach full-day kindergarten children art, music, and physical education.

An array of kindergarten materials published by Ginn, Houghton Mifflin, and The Economy Company was utilized in the full-day kindergarten program along with various other supplementary instructional aids.

Two classroom schedules used during the pilot program follow.

Classroom Schedule I

8:15 - Children work quietly at tables or read while aide collects lunch money and takes attendance

8:30 - Opening Exercises: Good Morning Song
Pledge of Allegiance
Calendar
Temperature - Weather

8:55 - Physical Education

9:30 - Restroom and Drinks

9:40 - Grouping - Group I - Reading Readiness
Phonics
Initial Handwriting Instruction

Group II - Visual Motor Skills
Readiness Skills
Handwriting Reinforcement

Group III - Language Development (Peabody and DUSO)

10:05 - Groups Alternate - Group II
Group III
Group I

10:30 - Groups Alternate - Group III
Group I
Group II

10:55 - Preparation for Lunch

11:00 - Lunch

11:20 - Rest

11:30 - Noon Recess

12:00 - Restroom and Drinks

12:05 - Stories - Sharing (communication skills)

12:30 - Mathematics or Language Program - Full group instruction
Full utilization of aides for lesson

12:55 - Music or Movement Exploration

1:15 - Social Studies or Science - Library

1:30 - Free Choice - using materials at centers

1:50 - Art

2:25 - Review of Day's Events

2:35 - Dismissal

Classroom Schedule II

8:30 - Children do seat work while lunch money is collected and attendance is taken.

8:45 - Opening Exercises: Good Morning Song
Pledge of Allegiance
Calendar
Temperature - Weather

9:00 - Restroom and Drinks

9:10 - Grouping - Group I - Readiness
Language Development
Initial Handwriting Instruction

Group II - Peabody and DUSO

9:30 - Groups Alternate

Group II
Group I

9:50 - Free Choice

10:10 - Team Teaching - Students switch rooms and teacher teaches math to other kindergarten class; the teacher's class receives reading readiness instruction from the other kindergarten teacher.

10:45 - Preparation for Lunch

10:50 - Lunch

11:20 - Recess

11:50 - Return to Classroom, Attendance

12:00 - Story and Conversation

12:15 - Mathematics

12:35 - Restroom and Drinks

12:45 - Social Studies, Health, or Science

1:05 - Art

1:40 - Physical Education, Story, or Game

2:15 - Snack

2:30 - Music

2:40 - Papers Distributed

2:50 - Coats On, Good-bye Song

2:55 - Dismissal

In addition to the possible readiness skills and concepts mastered in a half-day program, the increased length of time of the full-day program enabled the school staff to capitalize on many classroom instructional possibilities for reinforcement. Additionally, an in-depth curriculum for further exploration and enrichment beyond the realm of readiness was a major goal.

The curriculum was based on the following skills and concepts:

Language Development

I. Speaking Skills

- A. Labeling
- B. Expanding Vocabulary
- C. Discussing Events
- D. Describing Details
- E. Speaking in Complete Sentences

II. Self-Expression

- A. Expressing Thoughts and Feelings
- B. Dramatizing
- C. Relating Experiences
- D. Communicating with Others

III. Comprehension and Thinking

- A. Comparing
- B. Classifying
- C. Sequencing
- D. Interpreting
- E. Predicting Outcomes
- F. Drawing Conclusions
- G. Distinguishing between Fantasy and Reality
- H. Understanding Cause and Effect

IV. Reading Mechanics and Interest

- A. Top-to-Bottom Progression
- B. Left-to-Right Progression
- C. Reading Interest
- D. Letter-Symbol Recognition
- E. Word Recognition

Social and Emotional Development

I. Social Development

- A. Body Identification - name and locate body parts
- B. Peer Interaction - relating to other pupils
- C. Self-Information - name, address, telephone number
- D. Achievement and Interest Needs - participation and effort
- E. Cooperation - sharing, relating to others
- F. Independence and Responsibility - work independently and cooperatively

II. Emotional Development

A. Attention Span - selective thought, concentration
B. Positive Self-Concept - personal worth, confidence
C. Moods and Feelings Awareness - recognize, understand, express
D. Appropriate Attitudes and Values - consideration, humor, self-discipline
E. Creativity - elaborate and original production, flexibility, reinterpreting
F. Stamina and Curiosity - healthy energy and endurance
G. Music Awareness - appreciation and expression
H. Art Awareness - appreciation and expression

Psychomotor Development

I. Gross Motor Development

A. Crawl
B. Run, Gallop
C. Jump, Hop, Skip
D. Throw and Coordination

II. Fine Motor Development

A. Small-Muscle Coordination
B. Eye-Hand Coordination

III. Sensory Development

A. Spatial Awareness
B. Balance and Rhythm
C. Follows Directions
D. Kinesthetic and Tactile Recognition
E. Left and Right Orientation

IV. Perceptual-Motor Development

A. Auditory Discrimination
B. Visual Discrimination
C. Auditory Memory
D. Visual Memory
E. Sound-Symbol Recognition
F. Visual Figure-Ground
G. Color Recognition
H. Sensory Awareness

Conceptual Development

I. Mathematics Principles

A. Measurement (liquid and dry cup)-size, volume, money, time
B. Shapes - recognize, compare
C. Classification - match, sort
D. Sets - match, join, separate
E. Patterns - duplicate, extend
F. Numbers and Numerals - recognize, sequence

II. Science Principles

A. Science Tools
B. Nutrition
C. Safety
D. Weather
E. Health and Hygiene
F. Plants
G. Animals
H. Seasons
I. Senses

III. Social Studies Principles

A. Family-Community Relationships
B. Career Awareness
C. Environmental Relationships
D. Group Living
E. Awareness of Other Cultures
F. Citizenship and Patriotism
G. Important Times and People
H. Economic Principles

References

1. All-Day Kindergarten: Resources for Decision-Making. Trenton: New Jersey State Department of Education, 1985, 105 pp.

2. A Longitudinal Study of the Effectiveness of Full-Day Kindergarten. Evansville, Ind.: Evansville-Vanderburgh School Corporation, 1983, 103 pp.

3. Position Statement on Kindergarten. Omaha: Nebraska State Board of Education, 1984, 9 pp.

4. Report to the State Board of Education: Full-Day, Daily Kindergarten. St. Paul: Minnesota Board of Education, 1986, 17 pp.

5. The Status of Kindergarten: A Survey of the States. Springfield: Illinois State Board of Education, 1985, 20 pp.

6. A Study of the Effectiveness of Full-Day Kindergarten. Evansville, Ind.: Evansville-Vanderburgh School Corporation, 1980, 106 pp.

CHAPTER II

METHOD

The purpose of the study was to determine whether or not the students who completed full-day, every-day kindergarten in 1979 and/or 1980 exhibited any long-term benefits. Data were collected from standardized tests, report cards, school records, questionnaires, and interviews to test the null hypothesis that there was no difference in children who attended the 1978-1979 and 1979-1980 full-day and half-day programs. Thus, the study was based on the expectation that children who attended the 1978-1979 and/or 1979-1980 full-day, every-day kindergarten would

1. Have kindergarten, first, second, and third grade teachers with positive attitudes about full-day kindergarten.

2. Have parents with positive attitudes about full-day kindergarten.

3. Have positive attitudes about full-day kindergarten.

Further, when compared with students who attended half-day kindergarten in 1978-1979 and/or 1979-1980, the children who attended the full-day kindergarten would be expected to

4. Have a higher rate of attendance.

5. Have more positive attitudes toward school, as measured by the Survey of School Attitudes.

6. Achieve higher conduct marks on report cards.

7. Have a lower rate of nonpromotion.

8. Display a higher self-concept, as measured by the Piers-Harris Children's Self-Concept Scale.

9. Achieve higher scores on the Boehm Test of Basic Concepts (compared to a norm group).

10. Achieve higher readiness scores, as measured by the California Achievement Tests.

11. Achieve higher handwriting ratings, as measured by the Evaluation Scale--Cursive.

12. Achieve higher reading scores, as measured by the Gates-MacGinitie Reading Tests.

13. Achieve higher academic scores, as measured by the Comprehensive Tests of Basic Skills.

14. Have a higher rate of participation in extracurricular activities.

15. Achieve higher academic marks on report cards.

Finally, parents who have the choice of half- or full-day public school kindergarten, nonpublic school kindergarten, or no kindergarten, inasmuch as kindergarten attendance is not required in Indiana, would

16. Choose to enroll children in the full-day program.

17. Have a higher percentage of their children attend public school kindergarten.

Experimental and Control Groups

The experimental group was automatically determined by full-day kindergarten students who attended the four pilot schools: Glenwood, Stockwell, Tekoppel, and Thompkins. The control group was selected by using a random sampling of half-day kindergarten students from four schools that continued the half-day kindergarten sessions.

In order to have the same socioeconomic backgrounds represented in the full-day kindergarten results and in the half-day kindergarten results, the random sampling of half-day kindergarten students for the control group was selected from schools that matched the socioeconomic areas of the four full-day pilot schools. Care was also taken to obtain results from both morning and afternoon half-day kindergarten sessions. There were 187 children enrolled in full-day kindergarten in the four experimental schools in June 1979 and 223 enrolled in the same four schools in June 1980. There were 223 half-day kindergarten students enrolled in June 1979 and 203 students enrolled in June 1980 in the four control schools. In this study, only those children still enrolled in the same elementary school at the time data were collected were included. At the middle school level, grades six, seven, and eight, all children enrolled in any of the ten middle schools were included if they were members of the control or experimental groups.

The fifth grade Cognitive Skills Index scores on the Test of Cognitive Skills, as printed in Table III, show that the mean of the full-day students was 102.14 and the mean of the half-day students was 99.37. The statistical *t*-test shows that the mean scores of the two groups were not significantly different. The mean of the seventh grade full-day students was 103.09, and the mean of the half-day students was 102.47. The statistical *t*-test shows that the mean scores of the two groups were not significantly different.

TABLE III

GRADES FIVE AND SEVEN COGNITIVE SKILLS INDEX

SCORES ON

TEST OF COGNITIVE SKILLS

Grade	Full-Day N	Full-Day Mean	Full-Day S.D.	Half-Day N	Half-Day Mean	Half-Day S.D.	t	p
5	105	102.14	14.91	103	99.37	12.54	1.45	N.S.
7	92	103.09	15.45	107	102.47	11.88	0.31	N.S.

Evaluation Instruments and Data Collection

A description of each source of information utilized in the study follows in this chapter.

Full-Day Kindergarten Teacher Opinionnaire

The expertise and insight that can only be given by kindergarten teachers who have taught in both full-day and half-day kindergartens were solicited by developing a kindergarten teacher opinionnaire (Reference 11).

Interview - Full-Day Kindergarten Teachers

Full-day kindergarten teachers were interviewed as to the advantages and disadvantages of the full-day kindergarten program. Their direct comments have been included in Chapter III.

Kindergarten Opinionnaire - First Grade Teachers

An opinionnaire was created to obtain opinions of first grade teachers who had received the 1978-1979 full-day kindergarten children (Reference 11).

Teacher Opinionnaire - Primary

Kindergarten teachers developed a Full-Day Kindergarten Opinionnaire for primary grade teachers (Reference 8). The opinionnaire was given to the first, second, and third grade teachers of the four experimental schools during the fall of 1982. The purpose of the opinionnaire was to determine the attitudes of teachers toward the full-day program. For reference purposes, a list of children who had attended the full-day kindergarten was provided to each teacher.

Parent Questionnaire

A Parent Questionnaire was developed by a team of kindergarten teachers and mailed to all parents of children who had completed the full-day kindergarten program in either 1979 or 1980 and were still enrolled in the same school (Reference 8). The purpose of the questionnaire was to determine the attitudes that parents of the full-day kindergarten children had about the program after their children had completed either second or third grade. The questionnaire included items about social skills, academic achievement, and learning skills and asked the parents to express their feelings about and preferences for the full-day program. Comments from parents were solicited as the last part of the questionnaire mailed during the fall of 1982.

Attendance Records

Attendance information was received from kindergarten teachers for comparison at the kindergarten level and from the Data Processing Center of the Evansville-Vanderburgh School Corporation for the middle school years.

Student Questionnaire

A Student Questionnaire to be given only to full-day kindergarten students to determine their attitudes about full-day kindergarten was developed by a team of kindergarten teachers (Reference 8). Three or four stations were set up in the kindergarten room of each experimental school, and third and fourth grade children were brought to the room. The evaluators read each question to individual students and recorded answers of yes or no with the exception of one item. The questionnaire was administered in the fall of 1982.

Survey of School Attitudes

The Survey of School Attitudes, Primary Level, Form A, was given to all children in the third grade who had been in the original experimental and control groups. The Survey of School Attitudes, Intermediate Level, Form A, was given to all fourth grade children who had been in the original experimental and control groups. Both of these grade levels were tested in the fall of 1982.

The Survey of School Attitudes is designed to measure student reactions to reading and other language arts, mathematics, science, and social studies. The test includes 60 Likert-type items distributed equally across the four curriculum areas. The student responds by marking a smiling, neutral, or frowning face which represents like, not sure or don't care, and dislike, respectively. The test format for third grade calls for students to mark answers in the test booklet, and the fourth grade students record answers on a separate sheet.

The author (Reference 6) reported that split-half and alpha reliabilities with grades for the primary test ranged from .77 to .91 with a median of .85. Alternate-form reliabilities ranged from .52 to .65. The results of the intermediate test for the fourth grade showed that the split-half and alpha reliabilities ranged from .82 to .90 and the alternate-form reliability, .74 to .83.

Report Card Conduct Marks

Four times a year, each child in the primary grades is given conduct marks on the Progress Report. The report lists eight areas under the topic "Growth as an Individual." These areas are as follows: respects authority, shows self-confidence, uses self-control, follows directions, works independently, uses time wisely, uses materials wisely, and puts forth best effort. Four other areas are marked under "Growth as a Member of the Group." These four areas are works well with others, listens attentively, obeys playground rules, and respects property of others. The marks for all 12 areas are S (Satisfactory Progress), I (Improvement Shown), and N (Needs Improvement) with S being high, I lower than S, and N the lowest possible mark.

Each child thus has four report card marks in 12 conduct areas. These 48 marks are placed on a composite report at the end of the year, and averages are determined for each of the 12 areas. These averages were used to compare the experimental and control groups. The 1978-1979 groups had conduct mark averages for the first, second, and third grades, and the 1979-1980 groups had conduct mark averages for the first and second grades.

Nonpromotion

Nonpromotion information was obtained from the Data Processing Center of the Evansville-Vanderburgh School Corporation. The children enrolled in kindergarten in the four experimental and four control schools in June 1979 and June 1980 were compared to the third and fourth grade lists of children who were still in the same school in June 1982 to determine those promoted to a higher grade and those nonpromoted for another year. Additional information was obtained in 1988 for the full- and half-day students for the 1978-1979 and 1979-1980 groups concerning promotion, nonpromotion, special education, and withdrawal from the school system.

Piers-Harris Children's Self-Concept Scale

In the fall of 1982, the Piers-Harris Children's Self-Concept Scale was given to all third and fourth grade children who had been in the original experimental and control groups. The test was designed for research on the development of children's self-attitudes and the correlates of these attitudes. The author (Reference 10) reported that the reliability coefficients ranged from .78 to .93 using the Kuder-Richardson Formula 21.

The test items were based on Jersild's list of categories (Reference 7) about what children like and dislike about themselves. The categories are as follows: physical characteristics and appearance; clothing and grooming; health and physical soundness; home and family; enjoyment and recreation; ability in sports and play; ability in school and attitudes toward school; intellectual abilities; special talents; just me and myself; and personality, character, inner resources, and emotional tendencies.

Task Observation Assessment

Using a short locally developed task observation assessment, a limited indication of the psychomotor, affective, linguistic, and cognitive growth was obtained for comparison of full-day and half-day kindergarten students.

Four teachers who had worked with young children interviewed 40 full-day kindergarten students, 20 morning half-day kindergarten students, and 20 afternoon half-day kindergarten students. Children were asked to identify and locate items, explain how they would handle certain social situations, react to an emotional situation, and perform certain physical skills (Reference 11).

Boehm Test of Basic Concepts

The Boehm Test of Basic Concepts (Reference 1) is a test designed to measure a child's mastery of concepts considered necessary for achievement in the first years of school. This instrument assesses the child's knowledge of frequently used basic concepts which are widely, but sometimes mistakenly, assumed to be familiar to children when they enter kindergarten. The test is designed to aid in the detection and remediation of deficiencies.

This test was administered only to the 1979-1980 full-day kindergarten students with test scores being compared to the middle socioeconomic norms that were established for the Boehm Test. Form A was given by the kindergarten teachers in September of 1979 as a pretest, and Form B was given as a posttest in April of 1980.

California Achievement Tests

The California Achievement Tests, used to measure cognitive growth, are comprehensive information systems for educational evaluation (Reference 3). The kindergarten subtests measure the achievement of kindergarten children in prereading and mathematics skills. The prereading area consists of six separate tests: Listening for Information, Letter Forms, Letter Names, Letter Sounds; Visual Discrimination, and Sound Matching.

The tests were administered to the 1978-1979 experimental and control groups during the same week in April of 1979 by the kindergarten teachers. The same procedure was repeated in March of 1980 for the 1979-1980 kindergarten experimental and control groups.

Handwriting Evaluation Scale - Cursive

The Zaner-Bloser Evaluation Scale--Cursive (Reference 5) for the third grade was used to evaluate the handwriting of the third grade children who had been in the 1979-1980 experimental and control groups, and the Zaner-Bloser Evaluation Scale--Cursive for the fourth grade was used to evaluate the handwriting of the fourth grade children who had been in the 1978-1979 experimental and control groups. The tests were administered in the fall of 1982.

The teacher wrote a sentence on the chalkboard, and the children practiced writing the sentence one time on third or fourth grade paper which

was provided to teachers along with the directions. Then the children wrote the sentence on the third or fourth grade paper using their best handwriting.

The Evaluation Scale--Cursive provides five examples of handwriting of the sample sentence which are illustrations of excellent, good, average, fair, and poor handwriting for grades three and four. It has five areas to be rated. These are letter formation, slant, spacing, alignment and proportion, and line quality. The definition used for each of these terms was that provided in The Language Arts in Childhood Education (Reference 2).

The test papers were rated by a university professor and two university graduate students in education. Before scoring the handwriting samples, they were trained to administer the Evaluation Scale--Cursive. In the training session, the five areas were described. Then each evaluator independently scored ten randomly chosen handwriting samples. After discussing the ratings for each sample and arriving at a consensus on the score, the evaluators were given one-third of the handwriting samples to score. The evaluators received a randomly selected third of the handwriting samples from each of the experimental and control schools for both third and fourth grades.

Gates-MacGinitie Reading Tests

The Gates-MacGinitie Reading Tests, Primary A, were used to collect follow-up data on the 1978-1979 experimental and control groups. This data was utilized to determine if there were any differences in the achievement levels during the first grade between full-day and half-day kindergarten students. The test consists of two parts. The Vocabulary Test indicates a child's ability to recognize or analyze isolated words, and the Comprehension Test measures a child's ability to read and understand whole sentences and paragraphs.

The Gates-MacGinitie Reading Tests were administered to all first grade students in the Evansville-Vanderburgh School Corporation during the same week in April of 1980. From these tests, results for the 1978-1979 experimental and control groups were compiled.

The children who finished kindergarten in the spring of 1980 were given the Gates-MacGinitie Reading Tests, Level B, Form 2, in the spring of 1982 when these children were in the second grade. The children who finished kindergarten in the spring of 1979 were given Level C, Form 1, of the same tests in the spring of 1982 when they were in the third grade. The results were taken from tests administered to all second and third grade children in the school system as a part of the Chapter I reading program and the district's regular reading program. The hand-scored edition of the tests was used in the second and third grades, and the children marked their answers in the test booklets.

Levels B and C include a vocabulary test and a comprehension test. The vocabulary test has 45 items consisting of a test word followed by four words or phrases, and the student's task is to choose the word or phrase that matches the test word. The comprehension test has 44 questions.

There are two questions for each of the 22 different passages. The Level B test has 80 percent literal questions and 20 percent inferential questions, and the Level C test has 65 percent literal questions and 35 percent inferential questions.

The author (Reference 8) reported Kuder-Richardson Formula 20 reliability coefficients as follows: Level B, Form 2, vocabulary .93 and comprehension .92; and Level C, Form 2, vocabulary .94 and comprehension .93.

Comprehensive Tests of Basic Skills

The Comprehensive Tests of Basic Skills (Reference 3), Form U, Levels E, G, and H, Complete Battery, 1981 edition, were given to all Evansville-Vanderburgh School Corporation third, fifth, and seventh grade students in the spring of 1982, 1984, and 1986, and results were obtained for the children in the 1978-1979 experimental and control groups.

The Comprehensive Tests of Basic Skills provides information in the following areas: word attack, vocabulary, comprehension, and total reading; spelling, mechanics, expression, and total language; computation, conclusions and applications, and total mathematics; total battery; science; and social studies.

The Comprehensive Tests of Basic Skills reading content includes various word attack skills. The vocabulary items measure categorization, same-meaning words, words in context, multimeaning words, and word affixes. The comprehension items measure skills in understanding sentence meaning, passage details, character analysis, main ideas, generalization, written forms, and author techniques.

The spelling items measure application of rules for consonants, vowels, and various structural forms.

Capitalization and punctuation skills are a part of the language mechanics section. Language expression measures ability in use of parts of speech, formation and organization of sentences, writing for clarity, and application of various writing styles.

The mathematics computation items measure addition, subtraction, multiplication, and division. The application of mathematics is measured with items in numeration, number sentences, number theory, problem solving, measurement, and geometry.

The science section has content from the physical and life sciences and includes botany, zoology, physics, chemistry, and ecology. Skills are measured in the understanding of scientific principles and phenomena and the ability to classify, quantify, and interpret data.

Social studies content includes geography, economics, history, political science, and sociology. Visual stimuli are used to permit the testing of social studies concepts independent of reading skills.

The Kuder-Richardson Formula 20 reliability coefficients for the Comprehensive Tests of Basic Skills are as follows: Test 1, Reading Word Attack, 0.9607; Test 2, Reading Vocabulary, 0.9775; Test 3, Reading Comprehension, 0.9729; Test 4, Spelling, 0.9678; Test 5, Language Mechanics, 0.9537; Test 6, Language Expression, 0.9594; Test 7, Mathematics Computation, 0.9621; Test 8, Mathematics Conclusions and Applications, 0.9625; Test 9, Science, 0.9424; and Test 10, Social Studies, 0.9640.

Extracurricular Activities

The participation of experimental and control group students in middle school extracurricular activities was obtained from middle schools and involved the Academic Academy, athletics, and other activities.

The Academic Academy is an after-school program that provides opportunities for students to participate in choir, drama, forensics, and special activities involving computers, mathematics, and science.

The following athletic teams are available for middle school students: cub and flag football, volleyball, basketball, and track. Other activities include band, cheerleading, choir, orchestra, pompon squad, student council, library aide, and safety patrol.

Report Card Academic Marks

Children receive Progress Reports (report cards) four times each year in grades one to three. The marks children receive in school subject achievement are S (Satisfactory Progress), I (Improvement Shown), and N (Needs Improvement) with S being high, I lower than S, and N the lowest possible mark. Marks are given in the first grade in mathematics, reading, and handwriting. Children in the second grade receive marks in mathematics, reading, handwriting, and spelling. In the third grade, marks are given in mathematics, reading, handwriting, spelling, English, social studies, science, art, and music.

At the end of each year, the four report card marks are recorded on a composite report along with an average of the marks. This average was used to compare the experimental and control groups. The 1978-1979 groups had progress report averages for first, second, and third grades, and the 1979-1980 groups had progress report averages for the first and second grades.

Middle school students receive progress reports four times each year. The reports are printed in the Data Processing Center and grade point averages are computed with A = 4.0, B = 3.0, C = 2.0, D = 1.0, and F = 0.0. Students with a 4.0 average achieve the Distinguished Scholarship rating, students with 3.50 to 3.99 achieve the Scholarship A rating, and students with 3.00 to 3.49 achieve the Scholarship rating.

Data Analysis

The results from the Student Questionnaire, Parent Questionnaire, and Teacher Opinionnaire were tabulated and summarized.

The statistical t-test was used on the data collected from the California Achievement Tests, Boehm Test of Basic Concepts, Piers-Harris Children's Self-Concept Scale, Survey of School Attitudes, Evaluation Scale--Cursive, Gates-MacGinitie Reading Tests, and Comprehensive Tests of Basic Skills.

The full-day kindergarten and the first grade teacher opinionnaires were analyzed by employing the Likert Method. The parent questionnaires were evaluated by comparing the percentages of responses of full-day and half-day kindergarten parents.

The chi-square test of independence was used on the data collected from attendance records, task observation assessments, report card academic grades, report card conduct marks, nonpromotion information, and extracurricular participation figures.

References

1. Boehm, Ann E. Boehm Test of Basic Concepts. San Antonio: The Psychological Corporation, 1970.

2. Burns, Paul C., and Broman, Betty L. The Language Arts in Childhood Education. Boston: Houghton Mifflin Company, 1979.

3. California Achievement Tests. Monterey: CTB/McGraw-Hill, 1970.

4. Comprehensive Tests of Basic Skills. Monterey: CTB/McGraw-Hill, 1981.

5. Evaluation Scale--Cursive, Grades 3 and 4. Columbus: Zaner-Bloser, 1979.

6. Hogan, Thomas P. Survey of School Attitudes, Manual for Administering and Interpreting. New York: Harcourt, Brace, Jovanovich, Inc., 1975.

7. Jersild, Arthur T. In Search of Self: An Exploration of the School in Promoting Self-Understanding. New York: Teachers College, Columbia University, Bureau of Publications, 1952.

8. A Longitudinal Study of the Effectiveness of Full-Day Kindergarten. Evansville, Ind.: Evansville-Vanderburgh School Corporation, 1983, 103 pp.

9. MacGinitie, Walter H. Teacher's Manual for Gates-MacGinitie Reading Tests, Second Edition. Boston: Houghton Mifflin Company, 1978.

10. Piers, Ellen V. Manual for the Piers-Harris Children's Self-Concept Scale. Nashville: Counselor Recordings and Tests, 1969.

11. A Study of the Effectiveness of Full-Day Kindergarten. Evansville, Ind.: Evansville-Vanderburgh School Corporation, 1980, 106 pp.

CHAPTER III

ANALYSIS OF RESULTS

All data that were collected, compiled, and analyzed to lay the foundation to accept or reject the null hypothesis are presented in this chapter. The information from each evaluation instrument and statistical procedure is presented.

Opinions of Teachers and Parents

Kindergarten and First Grade Teacher Opinionnaires

Two opinionnaires were created in 1980 to obtain teacher opinions toward full-day kindergarten. One was developed for full-day kindergarten teachers and the other for first grade teachers who had received full-day kindergarten students. A copy of both opinionnaires with the teachers' opinions follows the results. The Likert Method and Scale was used in developing and analyzing the results. This involved creating a list of positive and negative comments with regard to full-day kindergarten. After each comment every teacher had a choice of five responses: strongly agree, agree, undecided, disagree, and strongly disagree. To formulate these opinions into one mathematical total that represented the majority opinion, numerical values of 1-5 were assigned to each response. On a positive statement a strongly agree was worth five points and a strongly disagree was worth one point. On negative comments the scale was reversed with a strongly disagree worth five points and a strongly agree worth one point. Thus, the higher the numerical score, the higher the opinion of full-day kindergarten. After the numerical score for each question had been tallied, the total for each of the two opinionnaires was determined. To provide a scale on which to base the results, the highest possible score and the lowest possible score were calculated. In addition, the neutral score (the total that would have been generated by every teacher marking every question undecided) was also calculated. The results follow:

Full-Day Kindergarten Teacher Opinionnaire

N = 5	
Most favorable response possible	325
A neutral attitude	195
Most unfavorable attitude	65
Actual score	254

First Grade Teacher Opinionnaire

N = 9	
Most favorable response possible	630
A neutral attitude	378
Most unfavorable attitude	126
Actual score	377

KINDERGARTEN OPINIONNAIRE
FULL-DAY KINDERGARTEN TEACHERS

The following statements represent opinions, and your agreement or disagreement will be determined on the basis of your particular convictions. Please check your position on the scale for each statement.

a. I strongly agree
b. I agree
c. I am undecided
d. I disagree
e. I strongly disagree

	a	b	c	d	e
1. I do not like the concept of full-day kindergarten.			1	3	1
2. If my classroom size is 40 or below, I would rather teach in a full-day kindergarten classroom than in a half-day kindergarten classroom.	1	1	2		1
3. If the classroom size is 50, I would prefer a half-day session with 25 in each session rather than teach 50 in a full-day program.	5				
4. Full-day kindergarten students become more independent than half-day kindergarten students.	1	4			
5. Full-day kindergarten students had difficulty handling the lunch hours.				1	4
6. Full-day kindergarten students retain more than the half-day kindergarten students because there is time to reinforce the concepts that are taught.	1	3	1		
7. The majority of my kindergarten students were too tired in the afternoon to benefit from instruction.				2	3
8. The immature kindergarten child has more difficulties adjusting to a full-day situation than the mature kindergarten child.	1	1	1	2	
9. Full-day kindergarten is better for the child because the students can participate in the total school program.	1	3	1		
10. Half-day kindergarten students are able to master the same readiness skills as the full-day kindergarten students.	1	1		3	

	a	b	c	d	e
11. Full-day kindergarten students have more opportunities to socialize with their peer group.	1	4			
12. Full-day kindergarten students have a better knowledge of letter names and letter sounds than half-day kindergarten students.	1	4			
13. The attention span and listening skills of half-day students is better than full-day students.			2	2	1
14. Full-day kindergarten should be continued and expanded in the Evansville-Vanderburgh School Corporation if classroom size is realistic.	1	3	1		

KINDERGARTEN OPINIONNAIRE - FIRST GRADE TEACHERS

The following statements represent opinions, and your agreement or disagreement will be determined on the basis of your particular convictions. Please check your position on the scale for each statement.

a. I strongly agree
b. I agree
c. I am undecided
d. I disagree
e. I strongly disagree

	a	b	c	d	e
1. I would rather have students enter my first grade classroom with a full-day kindergarten experience rather than a half-day kindergarten experience.	1	1	6	1	
2. Half-day kindergarten students were better prepared for first grade work habits than full-day kindergarten students.		1	2	4	2
3. Full-day kindergarten students function more independently than half-day kindergarten students.		4		5	
4. The children who have attended full-day kindergarten have a better mastery of readiness skills than those who have attended half-day kindergarten.	1	5	2	1	
5. Half-day kindergarten students are more excited about coming to first grade than full-day kindergarten students.	3		1	3	2
6. Full-day kindergarten students seem to be bored with first grade material.		1	4	2	1
7. Full-day kindergarten children seem to socialize better within their peer group than half-day kindergarten students.		3	1	2	3
8. I do not see any difference in the abilities of half-day kindergarten students and full-day kindergarten students.		5	3		1
9. I feel that a half-day kindergarten experience is better for five and six-year-olds than a full-day experience.	1	6	1		1

	a	b	c	d	e
10. Full-day kindergarten students have a better knowledge of letter names and letter sounds than half-day kindergarten students.	1	4	2	2	
11. Fine motor skills and handwriting readiness is further developed in the full-day kindergarten student than in the half-day kindergarten student.		2	5	2	
12. Full-day kindergarten students do not have better gross motor coordination than half-day kindergarten students.		6	2		
13. Full-day kindergarten students can follow directions better than half-day kindergarten students.		3	4	2	
14. The attention span of half-day kindergarten students is longer than the attention span of full-day kindergarten students.		1	6	1	1

Results show that full-day kindergarten teachers have a favorable attitude toward the full-day kindergarten concept and first grade teachers remain undecided.

It should be noted that number 3 in the full-day kindergarten opinionnaire was not included in the Likert Scale, as it expressed neither positive nor negative feelings about full-day. However, this statement is important to the study, and it is the only statement with which all five full-day kindergarten teachers strongly agreed.

Full-Day Kindergarten Teacher Interviews

The following expert opinions formulated while teaching in a full-day kindergarten program were obtained during personal interviews with the full-day pilot teachers in Evansville. These opinions were expressed when asked, "What are the advantages and disadvantages of a full-day kindergarten program?"

Advantages

"In disadvantaged areas all children receive a good noon meal."

"Enlarged curriculum opportunities for a more in-depth study in areas of social studies and science. There is also more time for music and art."

"More time spent on readiness and concept development."

"Children become more independent due to their experience in the lunchroom."

"Children receive daily instruction in language arts, concept development, and handwriting. In a half-day situation this is not always possible."

"Parents seem to approve whether they are working parents or not."

"First grade teachers feel that the children are well prepared."

"The biggest advantage of a full-day kindergarten is that I have the afternoon to reinforce the skills and concepts that I teach in the morning."

"I have more time to work with children on an individual basis."

"I was amazed that my students didn't need a rest period when school began in the fall."

"This is the first year since I began teaching that every child in my room was able to name each letter and say its letter sound. I'm sure this can be attributed to the reinforcement activities I was able to do in the afternoon."

"If the classroom size is 40 or under, the full-day program is an excellent opportunity for young children. If the classroom size is larger than this, I don't feel it would be a feasible situation."

"Full-day kindergarten provides more time for teaching and reinforcing."

"My children were able to participate in music, art, and physical education, and this provided more opportunities for them to develop their listening skills and learn how to follow directions."

"Full-day allowed my assistants and I more time to work with the slower children."

"Full-day is a more relaxing situation. You do not feel so rushed. If a morning project is not completed, there is time in the afternoon to complete it."

"The full-day child has more adult and children relationships--i.e., more social contact."

"Full-day programs provide the time for those needing extended readiness activities."

"The full-day program provides time for enrichment activities."

"Full-day children became more of a part of the total school--participating in all primary program activities."

"Full-day provides time to integrate more areas of the curriculum than the half-day session affords--i.e., self-concept lessons."

"The full-day child can walk to and from school with a brother or sister or neighborhood children."

"I like the concept of a full-day kindergarten, but the number of children involved must be realistic."

Disadvantages

"The disadvantage that I see to my full-day program is classroom size. Inner city children need a great deal of individual help and attention. If full-day kindergarten is continued or expanded, I personally feel that 30 students with one assistant would be more beneficial to inner city children than my present enrollment of 40 students with one assistant."

"My classroom size is too large. I am not able to give personal attention to each child every day. The quiet child and the good child often lose out."

"When full-day kindergarten children go to first grade, the range of readiness is broadened even further."

"More work for the teacher in preparing lessons for an entire day rather than a half day."

"A few children seem to show signs of daily fatigue."

"There is an increase in work and planning for the work of the aides."

Disadvantages of a Large Class

One teacher stipulated that these were disadvantages only if a full-day kindergarten has over 40 students.

"There is a concentration of discipline problems when a group is very large."

"A loss of incentive on the part of the teachers to do some projects because of logistics--i.e., prepare a meal."

"The kindergarten room's physical facilities do not comfortably accommodate more than 40 children."

"Bookkeeping is a mountainous task because five- and six-year-olds do not know what the monies are for when they bring them in. We have to educate the parent to label all envelopes."

"Logistics cause loss of teaching time when using the restroom and when the class gets ready for lunch or physical education."

Teacher Opinionnaire - Primary

After the children attended full-day kindergarten through the primary grades, the 25 primary teachers in the four full-day experimental schools completed the Teacher Opinionnaire. Nine of the teachers were from grade one, eight from grade two, and eight from grade three. The opinionnaire contained 16 statements about full-day kindergarten to which the teachers could respond in agreement or disagreement or indicate that they were undecided about the statements.

Table IV contains the results of the Teacher Opinionnaire. The table reports the yes, no, and undecided marks and percentages of those marks for the teachers from grade one, grade two, and grade three and the total for all three grades.

Sixty-eight percent of the primary teachers indicated that it would be beneficial for all students to have a full-day kindergarten experience. Sixteen percent did not agree, and 16 percent were undecided.

TABLE IV
TEACHER OPINIONS OF
FULL-DAY KINDERGARTEN

Statement	Grade 1 Teachers							Grade 2 Teachers							Grade 3 Teachers							Total						
	N	Yes		No		Undecided		N	Yes		No		Undecided		N	Yes		No		Undecided		N	Yes		No		Undecided	
		f	%	f	%	f	%		f	%	f	%	f	%		f	%	f	%	f	%		f	%	f	%	f	%
1. It would be beneficial to have all my students enter my classroom having had a full-day kindergarten experience rather than a half-day kindergarten experience.	9	8	89	1	11	0	0	8	4	50	1	13	3	38	8	5	63	2	25	1	13	25	17	68	4	16	4	16
2. The students who attended full-day kindergarten have better work habits than half-day kindergarten students.	9	6	67	1	11	2	22	8	4	50	2	25	2	25	8	5	63	2	25	1	13	25	15	60	5	20	5	20
3. The students who attended full-day kindergarten function more independently than half-day kindergarten students.	9	7	78	1	11	1	11	8	4	50	2	25	2	25	8	5	63	1	13	2	25	25	16	64	4	16	5	20
4. The children who have attended full-day kindergarten have better mastery of skills than those who have attended half-day kindergarten.	9	7	78	0	0	2	22	8	3	38	2	25	3	38	8	5	63	2	25	1	13	25	15	60	4	16	6	24
5. Students who attended full-day kindergarten are more excited about coming to school than half-day kindergarten students.	9	3	33	3	33	3	33	8	1	13	2	25	5	63	8	3	38	2	25	3	38	25	7	28	7	28	11	44
6. Students who attended full-day kindergarten seem to be bored with school.	9	1	11	8	89	0	0	8	1	13	6	75	1	13	8	0	0	7	88	1	13	25	2	8	21	84	2	8
7. Children who attended full-day kindergarten seem to socialize better within their peer group than half-day kindergarten students.	9	4	44	2	22	3	33	8	2	25	2	25	4	50	9	5	56	2	22	2	22	26	11	42	6	23	9	35
8. There are no apparent differences in the abilities of children who attended full-day kindergarten versus half-day kindergarten.	9	3	33	4	44	2	22	7	3	43	2	29	2	29	8	3	38	3	38	2	25	24	9	38	9	38	6	25
9. As a result of the full-day kindergarten, the students have been exposed to more in-depth basic skills programs.	9	8	89	0	0	1	11	8	7	88	1	13	0	0	8	6	75	0	0	2	25	25	21	84	1	4	3	12
10. The children who attended full-day kindergarten have a better knowledge of phonics and reading skills than half-day kindergarten students.	9	9	100	0	0	0	0	8	3	38	2	25	3	38	8	5	63	1	13	2	25	25	17	68	3	12	5	20
11. Fine motor skills and handwriting skills are further developed in the child who attended full-day kindergarten than the child who attended half-day kindergarten.	9	8	89	1	11	0	0	8	3	38	2	25	3	38	8	5	63	0	0	3	38	25	16	64	3	12	6	24
12. Children who attended full-day kindergarten seem to have better gross motor coordination than children who attended half-day kindergarten.	9	6	67	1	11	2	22	8	2	25	2	25	4	50	8	4	50	2	25	2	25	25	12	48	5	20	8	32
13. Students who attended full-day kindergarten can follow directions better than students who attended half-day kindergarten.	9	7	78	1	11	1	11	8	3	38	2	25	3	38	8	6	75	0	0	2	25	25	16	64	3	12	6	24
14. The attention span of full-day kindergarten students is longer than the attention span of half-day kindergarten students.	9	6	67	1	11	2	22	8	2	25	2	25	4	50	8	5	63	0	0	3	38	25	13	52	3	12	9	36
15. The full-day kindergarten program gives more time to develop basic listening and language skills.	9	8	89	0	0	1	11	8	8	100	0	0	0	0	8	6	75	0	0	2	25	25	22	88	0	0	3	12
16. A full-day kindergarten experience serves better for five and six-year-olds than a half-day experience.	9	6	67	1	11	2	22	8	4	50	2	25	2	25	8	5	63	1	13	2	25	25	15	60	4	16	6	24

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Sixty percent of the primary teachers agreed that the students who attended full-day kindergarten had better work habits than did children who attended half-day kindergarten. Twenty percent did not agree; 20 percent were undecided.

The students who attended full-day kindergarten functioned more independently than those who attended half-day kindergarten according to 64 percent of the primary teachers. Sixteen percent disagreed, and 20 percent were undecided.

Most of the primary teachers agreed that children who had attended full-day kindergarten had a better mastery of skills than those who had attended half-day kindergarten. Sixty percent agreed; 16 percent disagreed; 24 percent were undecided.

Only 28 percent agreed that students who attended full-day kindergarten were more excited about coming to school than were half-day kindergarten students. Twenty-eight percent did not agree, and 44 percent were undecided.

Eighty-four percent of the teachers indicated that children who attended full-day kindergarten were not bored in school. Eight percent said that they were, and 8 percent were undecided.

The children who attended full-day kindergarten seemed to socialize better within their peer group than did half-day kindergarten children according to 42 percent of the primary teachers. Twenty-three percent did not agree; 35 percent were undecided.

Thirty-eight percent agreed and 38 percent disagreed that there were no apparent differences in the abilities of children who attended full-day or half-day kindergarten, and 25 percent were undecided.

Eighty-four percent of the primary teachers agreed that the full-day kindergarten children were exposed to a more in-depth basic skills program; 4 percent did not agree; 12 percent were undecided.

Sixty-eight percent of the primary teachers agreed that the children who attended full-day kindergarten had a better knowledge of phonics and reading skills than did those who attended half-day kindergarten. Twelve percent disagreed, and 20 percent were undecided.

A total of 64 percent of the primary teachers agreed that fine motor skills and handwriting skills were further developed in children who attended full-day kindergarten. Twelve percent disagreed; 24 percent were undecided.

Forty-eight percent of the primary teachers thought that children who attended full-day kindergarten seemed to have better gross motor coordination than did children who attended half-day kindergarten; 20 percent disagreed with this, and 32 percent were undecided.

Students who attended full-day kindergarten followed directions better than those who attended half-day kindergarten according to 64 percent of

the primary teachers. Twelve percent disagreed with the statement, and 24 percent were undecided.

Fifty-two percent of the primary teachers agreed that the attention span of full-day kindergarten students was longer than the attention span of half-day kindergarten students. Twelve percent disagreed with the statement, and 36 percent were undecided.

Most of the teachers agreed that the full-day kindergarten program devoted more time to developing basic listening and language skills. Although none of the teachers disagreed with this, 12 percent of them were undecided.

Sixty percent of the teachers agreed that the full-day program was better for five- and six-year-old children than was the half-day program; but 16 percent disagreed, and 24 percent were undecided.

Table V gives the rank order of marks from the Teacher Opinionnaire supporting full-day kindergarten. A majority of the primary teachers indicated that full-day kindergarten was superior to half-day kindergarten in 12 of the 16 items. There was highest agreement in the statements that there was more time to develop basic listening and language skills, that students were not bored, and that students had been exposed to more in-depth skills programs. There was least agreement with the statements that full-day kindergarten children socialize better with their peer group, that there were no apparent differences in abilities of children in the two groups, and that children in the full-day kindergarten program were more excited about coming to school.

Table VI lists the sums and means of the percentages of marks on the Teacher Opinionnaire. First grade teachers gave the highest percentage of yes marks (68), third grade teachers had 57 percent yes marks, and the second grade teachers, 43 percent yes marks.

The first grade teachers had the lowest percentage of no marks with 17 percent, the third grade teachers had 19 percent no marks, and the second grade teachers, 25 percent no marks.

Second grade teachers had the highest percentage of undecided marks. Thirty-two percent of the second grade teachers, 24 percent of the third grade teachers, and 15 percent of the first grade teachers were undecided.

Overall, the percent in favor of the full-day kindergarten activities by primary teachers was 56. The percent of disagreement with the statements was 20, and the percent of undecided marks was 23.

Comments by Teachers From the Teacher Opinionnaire

Grade 1: "The following have been noted since the advent of all-day kindergarten:

1. Increased problems with lack of self-discipline
2. Poor handwriting habits, specifically incorrect letter formation and holding pencil incorrectly."

TABLE V

RANK ORDER OF MARKS

FROM THE TEACHER OPINIONNAIRE

SUPPORTING FULL-DAY KINDERGARTEN

Rank	Statement	% Yes
1	There is more time to develop basic listening and language skills.	88
2	Students are not bored.	84*
3	Students have been exposed to more in-depth skills programs.	84
4	It would be beneficial for all children to have full-day kindergarten.	68
5	Children have a better knowledge of phonics and reading skills.	68
6	Children function more independently.	64
7	Fine motor skills and handwriting skills are further developed.	64
8	Students can follow directions better.	64
9	Children have a better mastery of skills.	60
10	Children have better work habits.	60
11	Full-day kindergarten is better than half-day.	60
12	The students have a longer attention span.	52
13	Children have better gross motor coordination.	48
14	Children socialize better within their peer group.	42
15	There are no apparent differences in abilities of children.	38
16	Children are more excited about coming to school.	28

*A no mark for this item is considered a yes mark in this table.

TABLE VI

RESPONSES TO ALL ITEMS

ON TEACHER OPINIONNAIRE

Grade Level	Number of Teachers	Total Yes		Total No		Total Undecided	
		f	%	f	%	f	%
1	9	98	68	25	17	22	15
2	8	54	43	32	25	41	32
3	8	73	57	25	19	31	24
All Teachers	25	225	56	82	20	94	23

(Eight teachers did not write comments.)

Grade 2: "Students who have been enrolled in full-day kindergarten seem more restless and less attentive. Also they seem much more talkative at inappropriate times."

"There is a possibility that we are exposing children to skills too early. We may be pushing children to accomplish tasks before they are physically able. I think there are many parents who are unable to evaluate their child's readiness for school or the value of all-day versus half-day kindergarten for their child. Many parents consider all-day kindergarten for their child because it is more convenient, obviously, than half-day. Others may sincerely feel that more time in kindergarten is better without considering the child's abilities or maturity level at the time of enrollment. I don't think we can say full-day or half-day is best for all children."

"My five-year-old is presently enrolled as a full-day kindergarten student at Hebron. He was reluctant to attend as we talked this summer, but what helped was the thought of eating at school and riding the bus both ways with his brother. He has already learned to skip, which I think is due to the fact he has gym. His older brother had a half-day experience. He went in the afternoon and by dinner he was a grouch! I worried that my younger son would drag by the end of the day, but he doesn't even show any signs of tiredness. By going all day, he gives his full attention to skills in the morning, has a short rest during storytime and is ready to go again. I wish my older son could have gone all day because I see a big difference in the two boys, and I believe it has nothing to do with intelligence. I am confident that my younger son will be better prepared for first grade."

"Last year all my students had attended all-day kindergarten. This year I only have three that did not attend all-day kindergarten; therefore, I do not have a valid comparison."

(Four teachers did not write comments.)

Grade 3: "Some children have gained more than others."

"I have taught first until this year. I feel we should remember many of these children are not at home. They are with sitters or child-care situations and get no mental stimulation at all."

"My opinion is that some children are mature enough to attend all-day kindergarten without frustration--others need to ease into the structural learning situation with the half-day experience. By the time third grade is reached, I believe all-day kindergarten no longer has any effect."

"The students who have participated in the all-day kindergarten seem ready for first grade. By the time they reach third, the children appear to be mature third graders."

"The students who have attended the all-day program in general tend to be more settled and ready to assume responsibility for assigned tasks. They are more capable of working independently. Their academic skills seemed as a group to be more advanced."

(Three teachers did not write comments.)

Parent Questionnaire - Kindergarten and Grade One

The opinions of full-day and half-day kindergarten parents concerning their child's total learning in kindergarten were obtained from a ten-item questionnaire sent to them at the end of the kindergarten year. Parent preference and their reasons for selecting full-day or half-day kindergarten were also solicited on this questionnaire.

Table VII compares the responses of full-day and half-day kindergarten parents to the parent questionnaire. The table shows the total number of parents selecting one of the four choices ranked from most to least for questions 1 through 6. In questions 7 and 8 there were only two or three selection choices. Decline refers to parents who chose not to answer that particular question. A copy of the parent questionnaire with the responses of full-day kindergarten parents and a copy with the half-day kindergarten parent responses follow Table VII.

In question 1, full-day and half-day kindergarten parents responded the same, with 82 percent saying their child had learned a great deal. However, in questions 2 through 5 pertaining to a child's cognitive, psychomotor, affective, and linguistic growth, a larger number of full-day kindergarten parents indicated that their child had attained at a higher level than half-day kindergarten parents did. In question 6, no learning experience had a clear majority, but learning how to control the body in more coordinated ways was definitely selected as the least important learning experience for kindergarten children.

Question 7 showed that 31 percent of the full-day kindergarten parents found it necessary for someone to care for their child all day and 66 percent did not. Half-day kindergarten parents indicated that 38 percent needed someone to care for their child all day and 61 percent did not.

Of the 131 full-day kindergarten parents who returned the questionnaire, 120 indicated in question 8 that, if they had a choice, they would prefer full-day kindergarten instead of half-day kindergarten for their child. Five parents indicated a preference for the half-day session, two parents preferred half-day during the first semester and full-day during the second semester, and four parents chose not to answer this question.

TABLE VII

RESPONSES OF FULL-DAY AND HALF-DAY KINDERGARTEN PARENTS TO THE PARENT QUESTIONNAIRE

QUESTION		Full-Day Kindergarten Parents N = 131		Half-Day Kindergarten Parents N = 119	
	Choice	TOTAL	%	TOTAL	%
1	1	107	82	97	82
	2	23	17	22	18
	3	1	1	--	--
	4	--	--	--	--
2	1	90	69	70	59
	2	29	22	35	29
	3	11	8	13	11
	4	--	--	1	1
Decline		1	1	--	--
3	1	73	56	52	44
	2	26	20	23	19
	3	29	22	40	34
	4	3	2	3	2
Decline		--	--	1	1
4	1	101	77	66	56
	2	27	21	45	38
	3	2	1	4	3
	4	--	--	1	1
Decline		1	1	3	2
5	1	86	66	58	49
	2	42	32	58	49
	3	3	2	2	1
	4	--	--	--	--
Decline		--	--	1	1
6	1	42	32	48	40
	2	46	35	30	25
	3	36	27	26	22
	4	5	4	3	2
Decline		2	2	12	11
7	Yes	40	31	45	38
	No	87	66	73	61
Decline		4	3	1	1
8	Full-Day	120	92	63	53
	Half-Day	5	4	52	44
	Split	2	1	--	--
	Decline	4	3	4	3

KINDERGARTEN QUESTIONNAIRE FOR PARENTS
RESPONSES OF FULL-DAY KINDERGARTEN PARENTS

_____
Name of School

Please fill out the following questionnaire regarding your son or daughter who is now in kindergarten. PLEASE RETURN COMPLETE QUESTIONNAIRE WITHIN TWO DAYS.

1. How much do you believe your child has learned in kindergarten?

107 My child has learned a great deal.
23 My child has learned an average amount.
1 My child has learned little.
0 My child has learned nothing.

2. In the last year, how has your child's ability to work and play with other children changed?

90 My child has greatly improved.
29 My child has improved a little.
11 My child has not changed much.
0 My child has regressed.

3. In the last year, what changes have you noticed in the relationships between you and your child?

73 Our relationship is much more pleasant.
26 Our relationship is a little better.
29 Our relationship has not changed much.
3 Our relationship is more difficult.

4. During the last year, how would you describe the change in your child's confidence in his or her ability?

101 My child gained much more confidence.
27 My child gained a little more confidence.
2 My child's confidence did not change much.
0 My child's confidence decreased.

5. How much of your child's total development in the last year would you say is from experiences in kindergarten?

86 Most
42 Some
3 Little
0 None

6. What learning experiences do you think are the most important for children in kindergarten? Rank the items from 1 to 4 with 1 being your first choice. (Number of parents who ranked these first.)

42 Learning about the alphabet, words, numbers.
46 Learning how to get along with other children.

36 Learning how to control and express feelings positively.
5 Learning how to control the body in more coordinated ways.

7. Is it necessary for you to have someone care for your child all day because of other demands on your time?

40 Yes
87 No

8. If you had a choice, which would you prefer for your child?

120 Full-Day Kindergarten
5 Half-Day Kindergarten

State reasons why you believe the full-day or the half-day kindergarten would be better.

_____

_____

_____

_____

9. How could your child's kindergarten experiences be improved?

_____

_____

_____

_____

10. What would you most want to remain unchanged about your child's kindergarten experience?

_____

_____

_____

_____

KINDERGARTEN QUESTIONNAIRE FOR PARENTS
RESPONSES OF HALF-DAY KINDERGARTEN PARENTS

_____
Name of School

Please fill out the following questionnaire regarding your son or daughter who is now in kindergarten. PLEASE RETURN COMPLETE QUESTIONNAIRE WITHIN TWO DAYS.

1. How much do you believe your child has learned in kindergarten?

   97 My child has learned a great deal.
   22 My child has learned an average amount.
   0 My child has learned little.
   0 My child has learned nothing.

2. In the last year, how has your child's ability to work and play with other children changed?

   70 My child has greatly improved.
   35 My child has improved a little.
   13 My child has not changed much.
   1 My child has regressed.

3. In the last year, what changes have you noticed in the relationships between you and your child?

   52 Our relationship is much more pleasant.
   23 Our relationship is a little better.
   40 Our relationship has not changed much.
   3 Our relationship is more difficult.

4. During the last year, how would you describe the change in your child's confidence in his or her ability?

   66 My child gained much more confidence.
   45 My child gained a little more confidence.
   4 My child's confidence did not change much.
   1 My child's confidence decreased.

5. How much of your child's total development in the last year would you say is from experiences in kindergarten?

   58 Most
   58 Some
   2 Little
   0 None

6. What learning experiences do you think are the most important for children in kindergarten? Rank the items from 1 to 4 with 1 being your first choice. (Number of parents who ranked these first.)

   48 Learning about the alphabet, words, numbers.
   30 Learning how to get along with other children.

26 Learning how to control and express feelings positively.
3 Learning how to control the body in more coordinated ways.

7. Is it necessary for you to have someone care for your child all day because of other demands on your time?

45 Yes
73 No

8. If you had a choice, which would you prefer for your child?

63 Full-Day Kindergarten
52 Half-Day Kindergarten

State reasons why you believe the full-day or the half-day kindergarten would be better.

_____

_____

_____

_____

9. How could your child's kindergarten experiences be improved?

_____

_____

_____

_____

10. What would you most want to remain unchanged about your child's kindergarten experience?

_____

_____

_____

_____

All five statements from parents who would choose the half-day session for their child instead of the full-day session are included.

> "I feel that a five-year-old doesn't need to go to school all day because most children this age still take a nap. My child and several others I know are worn out at the end of the school day and still take naps."

> "Half-day is enough time each day for a student in kindergarten. This is an adjustment period for the child and half-day is enough time to adjust."

> "I do not feel that the schools ought to be in the business of day care. Children also benefit a great deal from the interactions with their parents and neighborhood and being in school all day takes some of this time away."

> "Feel that they are too young for a full day, need time with mother. It doesn't seem necessary. We believe that half-day concept is the best program for five-year-olds."

> "Half days are better because these children, or most, are too young the first half to adjust to being away from home so many hours. The classes are smaller to give more room, space, and teacher attention."

Statements from the two questionnaires that indicated they would choose half-day first semester and full-day second semester have also been included.

> "I think the first semester is such a big adjustment that a half day is a good accomplishment and by the second semester they are ready to cope with a whole day."

> "My husband and I believe the first semester full-day was extremely hard on our child. His class size was extremely large even though the teacher had three helpers. He had problems adjusting first semester. Believe he would have done better slowly advancing."

Ninety-two percent, an overwhelming majority of the full-day parents, indicated they would prefer the full-day kindergarten experience for their child. Due to the space it would take to include all their reasons, a sampling of their comments has been incorporated in this study.

> "I felt my child was ready for full-day kindergarten. He would have been bored otherwise. He thoroughly enjoyed full-day kindergarten. I don't think it is for every child, but my son has learned a great deal."

> "I believe it's a waste of time to send a child 2½ hours to school, five days a week, when he can go all day (five days a week) and learn more."

"I feel it's better for the child to get used to the full-day school pattern. I always felt a half day was just too short. In my girl's case she rode to school and back with her sister--this made it more convenient and assuring to the child."

"Because I think they learn more when going to full-day kindergarten, and it gives them a chance to learn to be away from their parents, and to get along with other children."

"Kids are going to nursery school more and more and I think they are ready to learn more. With gas being what it is, it sure would save on transportation if you could pick up all your kids at once!"

"I think five-year-olds are much more mature and sophisticated now and are ready for full-day kindergarten, especially my child who had gone to nursery school three years and others who had done this."

"I think full-day kindergarten is better because it gives the teacher more time to teach more of a variety."

"I prefer full-day kindergarten because I believe it prepares my child for first grade a lot better than half-day. Mindy has learned considerably more than my oldest daughter did in half-day."

"Full-day--more hours available to teach the child; better prepare the child for first grade (sitting and listening for longer periods)."

"I believe the full-day program has been beneficial for my son. He has had preschool experience and was ready for a more challenging program. The full-day program can offer a more challenging program than a half-day."

"I don't think that a half-day kindergarten allows enough time for children to learn everything they are expected to in kindergarten."

"Full-day is better for my child because she was older (October birthday) and ready for full-day. Going all day gave her more time to learn. I think a better learning program can be built in full-day rather than half-day. It is practical for working mothers."

"For myself I think it's better because he has learned so much, and he loves school. He enjoys being in school all day and that counts a lot."

"Full-day kindergarten is better because they (the children) are better prepared for the first grade. It's a very good utilization of the child's time."

"The extra time spent in the full-day kindergarten allows for more activities for the children to take part in. As my older daughter who was in half-day often said, 'I never got to do that when I was in kindergarten,' simply because there wasn't enough time."

"Full-day kindergarten gives the child a better variety of things to learn and more time to learn them in. They learn more than just the basic skills and are better prepared for first grade, I think."

"I feel the children have an opportunity to learn more in full-day kindergarten under qualified supervision."

"I feel like they can devote more time to each subject during a full day. The children definitely learn more."

"Children of today continually want to learn more and more at an earlier age."

"My oldest child went to kindergarten on half-day basis and I feel that my son by going all day has gained a lot more knowledge and understanding than his sister. I feel he's more prepared for first grade."

"Full-day kindergarten has a much more stable schedule. The children do not have to rush through their learning skills as much, and can study in a wider range of studies and skills. Children seem to enjoy school much more going a full day. They have to do at least some things on their own (such as at lunch time) that wouldn't be if they only went half days. Full-day is a better initiation into the stricter all-day schedules of first grade."

"I never have felt half-day kindergarten was worthwhile. Full-day kindergarten has really given my son a positive school experience. He has learned a lot more self-control and will be more ready for grade one."

"My son was six in December and already had two years of nursery school, so I felt he was ready for full-day kindergarten."

"Full-day kindergarten because it gives the teacher more time to teach more things in an uninterrupted manner. Children today are more mature."

"I feel that most mothers have sent their children to nursery school and preschool and that most of these

children are ready for full-day kindergarten. My child was ready for full-day and loves it."

"The half-day kindergarten is too short. They attend nursery school for a longer period of time. The way the half-day program is in Evansville--the child just gets there and gets settled when it's time to start getting ready to go home."

"By going full-day they have so much more time to learn and apply what they've learned. Also they feel more a part of the school by being included in art, music, and gym, and assemblies."

"Learn more things during the year--being with children their own age--most have attended nursery school so they are used to being away from home for long periods of time. I believe he has learned more things than if he only spent a half day there. He is spending his time more constructively than if he were out playing. He is much more disciplined now than before he started kindergarten. I don't think that would have been accomplished as well if he was only at kindergarten for three hours."

"The full-day kindergarten in my reasoning is far better because children at the age of five have far too much time on their hands. They should be in school learning. If I had my way they would start school at four."

"I think the child should get used to going to school a full day the first year. To me, first grade would seem like a long day after only going a half day in kindergarten. The child needs to know what is in store for him the first year."

"My son really enjoyed school and I never would have been able to stimulate his mind so much. I feel like he was really ready for a full-day experience and it was not too tiring for him."

"It gives the child a feeling of belonging with school. A growing experience of what school is going to be like for the next 12 years."

"My child was in nursery school full-time at age four. A half-day kindergarten would have seemed like baby stuff. She needs a school which is geared to the proper level. A full-day kindergarten fulfills this need much better."

"I feel that the full-day kindergarten is better. A child at the kindergarten level in today's world is much more aware of events in his community and world than a child at this level was a decade or more ago. Because he or she is

exposed to so much more today, a head start on an education can only be to his or her advantage."

"In my case my daughter turned five years in August--began school in September. She was one of the younger children and I think full-day kindergarten has helped her prepare for the first grade more than what half-day would have."

Of the 119 half-day kindergarten parents who returned the questionnaire, 63 stated they would select full-day kindergarten if they had the choice, 52 indicated they would select half-day, and four chose not to answer the question.

Half-day kindergarten parents gave thoughtful and concerned reasons for choosing a half-day kindergarten experience for their child. A cross section representing one-fourth of the comments written is included.

"A five- or six-year-old child needs a more gradual introduction to education--parents should spend the extra half day with the child in constructive ways. Some parents leave the entire job of education up to the school--a full-day kindergarten might further encourage this."

"I feel that a full-day program would be too demanding for a child of kindergarten age."

"Half-day kindergarten is enough. Children are only young once and they go all day for 12 or more years."

"Half-day is just enough for the child to adjust to and gradually eases him into full-day class and learning experiences. Gives parents the other half day to share in their learning."

"I am totally amazed at the things my child has learned in school this past year. Currently there are 30 plus children in the a.m. session, and 33 children in the p.m. session. One teacher and one assistant have accomplished a great deal with my child, and I do not feel that he would have received the same quality of education in a larger classroom. In view of the current finances of the E-VSC, I doubt that the current student/teacher ratio would be improved or even maintained in a full-day kindergarten setting. I do not feel that the current quality of education could be maintained if larger quantities of students are involved, and the number of teachers remain constant. Finally, my child has at least twelve more years of school. At some point he will tire of school, and I feel a whole day of school in kindergarten would precipitate these feelings at an earlier age."

"It really depends on the child or working situation of parents. But I feel that many children need a period of adjustment between being at home all day and spending the whole day in school."

"A full day seems too long for small children. They would probably get restless. But full-day would be convenient for working mothers."

"Depending on the child's maturity the half-day is probably still the most exposure this age group can tolerate."

"Not all parents can afford preschool, so many children are relating to other children for the first time and full-day would be a bit much."

"I believe half-day kindergarten is better because it gives a child an opportunity to adjust to school, and I think his ability to learn and comprehend is better because he is not worn out by a full-day affair."

"Some children are not ready for a full day. The older ones may be. Half a day is kind of a breaking-in period--they know next year they get to go a full day."

"Half-day, I believe, is better because, as a new experience for some children, full-day would be quite traumatic and too demanding on them. Half-day gives them enough for a five- or six-year-old as a first experience in school."

"Mothers who work would like full-day, but I do not work. I think children are being pushed earlier and earlier, even though they don't seem to mind at this time."

Many viable and sound reasons for selecting a full-day kindergarten for their child, if they had the choice, were expressed by half-day kindergarten parents. Since these opinions mirror those of the full-day kindergarten parents, it is not necessary to present a lengthy sampling of their comments. Therefore, a cross section representing one-fourth of their comments is included.

"The half-day has been more of a burden than a help for the working mother. I must provide a baby-sitter and extra transportation. Most children have a preschool experience and I feel full-day should be available for those ready for a full-day kindergarten. I am <u>not</u> advocating a baby-sitting service, but a quality educational experience."

"My children have taken a full year of nursery school, so they basically know their alphabet, recognition of the letters, how to count, how to print. My son was disappointed that kindergarten lasted for only 2½ hours. Having had nursery school experience, he was ready for more organized time than I feel qualified to give to him. The key word, I think, was <u>organized</u>. The basic ideas that were started were so rewarding for my son that I feel to

continue all of those with the possibility of expanding them to a full day would be ideal."

"The more time kindergartners can spend learning to believe in themselves, the better prepared they will be to enter the primary level later on. I think self-confidence is the basis for learning and that academic skills, at this point, are a bonus by having more time. I think if they could alternate learning and playing with rest periods, they would be better off than trying to work at such a fast pace in the 2½ hours they have."

"The world is a much tougher place to live in. I think children need all the training they can get starting a little earlier. At home and at school."

"There doesn't seem to be enough time in half-day kindergarten. The children no sooner get there and then it is time to come home."

"They have so little time for learning in half-day kindergarten."

"I believe that most children these days have already been to nursery school and/or a day-care center and could make the adjustment to a full-day kindergarten very well."

"With so many mothers having to leave the home and go to work it's hard to find someone to care for children in kindergarten because they have to find someone who can get the children to and from school; going full day you have use of the bus system or older children to walk to and from with."

"Full-day would allow for more time to be able to concentrate on the children having problems with learning. For working parents, transportation problems would be alleviated."

"Because it wouldn't cut their learning short like half a day does, they have more time to learn."

"Full-day would help to adjust for the rest of the years ahead and help working parents and possibly omit a sitter."

"The children don't really have enough time for all things that could be covered if children were to go full day to kindergarten."

"Full-day would be better for the child because he could adapt to going to school all day which would be better for first grade. Also, it is troublesome for mothers to take their child just for a half day."

"I think full-day would be better to get them used to being

in school all day because of first grade and all through school. I think they can learn more for their first grade year."

"I think most children now are much more advanced. Most children are used to going to day-care centers before they reach kindergarten."

Question 9 on the parent questionnaire produced the following answers. Of the 131 full-day kindergarten parents who returned the questionnaire, 39 percent were pleased and didn't suggest any improvements; 16 percent thought that a smaller class size would improve their child's kindergarten experience, with the majority of these comments coming from the two pilot schools with the largest classroom enrollment; 25 percent gave various answers that did not combine into like groups; and 20 percent left the question unanswered.

Of the 119 half-day kindergarten parents who answered the questionnaire, 39 percent were pleased and didn't suggest any improvements, 16 percent thought a longer kindergarten day would improve their child's kindergarten experience, 22 percent gave various answers that did not combine into like groups, and 26 percent left the question unanswered.

Question 10 did not produce any significant homogeneous groupings for either group except that many parents were extremely pleased with the teaching ability and the love and concern for young children that the kindergarten teachers had.

Parent Questionnaire - Grades Three and Four

A second parent questionnaire was mailed to full-day kindergarten parents when the children were in the third or fourth grades. A total of 196 Parent Questionnaires were mailed, and 92 parents, or 47 percent, returned them. Table VIII lists the parent responses to the first 14 items. The total number varied from 89 to 93 because some of the parents did not mark all of the items, and one questionnaire had question 8 marked both no and undecided.

The majority of parents indicated that their children learned more in the full-day kindergarten than they would have learned in half-day kindergarten. Ninety-five percent said yes, 1 percent said no, and 4 percent were undecided.

Ninety-five percent of the parents thought that their children were better prepared for first grade. None of the parents thought that their children would have been better prepared in a half-day program, but 5 percent were undecided as to whether or not their children were better prepared as a result of the full-day program.

Eighty-four percent of the parents indicated that they believed their children learned more self-control in the full-day kindergarten program. Three percent of the parents did not believe that their children learned more self-control, and 12 percent were undecided.

TABLE VIII

PARENT QUESTIONNAIRE RESULTS

FOR FULL-DAY KINDERGARTEN

ITEMS 1-14

Item		Yes		No		Undecided	
	N	f	%	f	%	f	%
1. As a result of the full-day kindergarten program, my child learned more than he would have in a half-day program.	92	87	95	1	1	4	4
2. As a result of the full-day kindergarten program, my child was better prepared for first grade.	92	87	95	0	0	5	5
3. As a result of the full-day kindergarten program, my child learned more self-control.	90	76	84	3	3	11	12
4. As a result of the full-day kindergarten program, my child became more socially adjusted.	90	79	86	3	3	8	9
5. As a result of the full-day kindergarten program, my child gained more self-confidence.	90	81	90	1	1	8	9
6. As a result of the full-day kindergarten program, my child became a better listener.	92	73	79	3	3	16	17
7. As a result of the full-day kindergarten program, my child was better able to express himself verbally.	89	76	85	1	1	12	13
8. As a result of the full-day kindergarten program, my child was better able to follow directions.	93	78	84	3	3	12	13
9. As a result of the full-day kindergarten program, my child learned to enjoy music.	91	67	74	5	5	19	21
10. As a result of the full-day kindergarten program, my child's skills in handwriting, cutting, coloring were greatly improved.	91	75	82	4	4	12	13
11. As a result of the full-day kindergarten program, my child was better prepared for reading.	92	87	95	0	0	5	5
12. As a result of the full-day kindergarten program, my child was better prepared for mathematics.	92	85	92	1	1	6	7
13. As a result of the full-day kindergarten program, my child developed body coordination.	91	72	79	1	1	18	20
14. As a result of the full-day kindergarten program, better home-school relationships have developed.	90	70	78	2	2	18	20

Most of the parents, 88 percent, thought their children became more socially adjusted as a result of the full-day kindergarten program. However, 3 percent did not agree, and 9 percent were undecided. Children gained more self-confidence in the full-day kindergarten according to 90 percent of the parents. One percent did not agree, and 9 percent were undecided.

Seventy-nine percent of the parents indicated that their children became better listeners as a result of the full-day program. Three percent did not think that their children were better listeners, and 17 percent were undecided. Eighty-five percent of the parents believed that their children were better able to express themselves verbally. One percent did not agree; 13 percent were undecided.

Eighty-four percent of the parents thought that their children were better able to follow directions. Three percent did not agree, and 13 percent were undecided. Seventy-four percent of the parents indicated that their children learned to enjoy music. Five percent stated that their children did not learn to enjoy music, and 21 percent were undecided.

Eighty-two percent of the parents believed that their children's skills in handwriting, cutting, and coloring were greatly improved. Four percent did not agree, and 13 percent were undecided. Children were better prepared for reading as a result of full-day kindergarten according to 95 percent of the parents. Although no parents disagreed, 5 percent were undecided.

Ninety-two percent of the parents indicated that their children were better prepared for mathematics. One percent did not agree; 7 percent remained undecided. Seventy-nine percent of the parents agreed that their children developed body coordination. One percent did not agree, and 20 percent were undecided.

Seventy-eight percent of the parents believed that better home-school relationships were developed. Two percent did not agree, and 20 percent were undecided.

Three additional questions were asked on the Parent Questionnaire that are not included in Table VIII. Parents were asked how they felt about the program at the end of the year. Eighty-eight parents, or 97 percent, were pleased; one parent, or 1 percent, was not pleased; and two parents, or 2 percent, were undecided.

Sixty-six parents, or 80 percent, felt positive when their child first entered the full-day kindergarten; one parent, or 1 percent, felt negative; and 15 parents, or 18 percent, were undecided. When asked which they preferred, 79 parents, or 92 percent, preferred full-day kindergarten; and two parents, or 2 percent, preferred half-day kindergarten.

Parents were asked to make comments on the questionnaire, and 46 did so. All of the comments made by parents follow.

Comments by Parents From the Second Parent Questionnaire

"I feel that having the children for a full day helps the teacher to spend more time on each phase of education. I feel this is very beneficial to the children. I had experience with both half-day and full-day kindergarten, and the full day, I feel, is definitely more worthwhile."

"I think the full-day kindergarten is wonderful. The children seem to learn so much more and are better adjusted to first grade. I have had one in half-day and one in full-day and one going next year. So I really think the all-day kindergarten is great."

"All-day kindergarten better prepares children for a full day of school without the strict discipline of first grade."

"My daughter would have found a two-hour kindergarten a step backwards after attending nursery school and day care full time at age four."

"As a working mother I was happy with all-day kindergarten because I didn't have to worry about transportation either to or from school in mid-afternoon. Also, there was more time for new and unique learning experiences such as field trips, making butter and peanut butter, etc."

"Some of the questions do not fit the program, or maybe the yes, no, and undecided answers do not fit. But my son was always ready for the next day and in a hurry for class to begin."

"My child was in the half-day program for half of the school year. When she started into the full-day program, she began to be relaxed and enjoy school more. There is no doubt that they do learn much more in the all-day program."

"Full-day kindergarten gives the child a better picture of what school will be like in the first grade and on up. I don't recommend full-day for the younger child."

"My daughter was in the first one-half year pilot program. I really felt it made a great difference in her school attitude. I wish her older brother could have been in all-day kindergarten. He really needed it as far as self-confidence and social adjustment."

"Should be available in all schools."

"I like the program. I am a working mother and I didn't have to worry about my child."

"As long as we keep the class under 30 students, I think it will work--over that, they don't get the attention they need."

"If they would start out for one month of half-day school, then change over to the full-day it would prepare all the children for the full-day. You have to remember not all children go to nursery school."

"Our son was in the first group that had all-day kindergarten. He had one-half year of the half-day kindergarten and then was switched to full-day. It worked out for him to have started one-half day and then worked into full-day."

"As a result of having spent two years in nursery school, I felt my son was ready for full-day kindergarten."

"Full-day kindergarten still is not for all five-year-olds--they're just not ready."

"I liked full-day because my daughter learned easily and enjoyed her teacher."

"My children had been used to being away from home because of my working for several years. They were ready for the full-day program. Some may not be..."

"I think full-day kindergarten is the best idea the school corporation has come up with in a long time and it is great for the kids. They really learn a lot more this way. All schools should have the program."

"Our kindergarten teacher made the difference for my son. Her total commitment headed him in the right direction, and that was an all-day job."

"It's difficult to know what my son would be accomplishing if he had gone to kindergarten one-half day, but I was very happy with his kindergarten experience."

"I believe the full-day kindergarten is a great program--especially with so many working mothers. I feel it also prepares them for all-day school the next year."

"There were too many students in the kindergarten classroom. There were 53 in one room which I believe was too many even with the number of teachers and aides."

"Even though our children have excellent home relationships, self-control and self-confidence, etc., all-day kindergarten has helped to improve these qualities they have. Thanks for helping our children become better prepared for the future."

"For my child full-day kindergarten was a wonderful experience. I'm not sure all children at this age are mature enough to go into an all-day learning program."

"It was what my child needed. It really helped us."

"I think that children are ready for school at a younger age now, and a full-day kindergarten was a positive step to get them learning when they are interested and eager to do so."

"My son started kindergarten on a half-day basis. He started full-day the second semester when they first started the trial program. The full day was a decided improvement. My son took more interest going all day. He said what he enjoyed most was having more time to spend on each subject and project."

"The full-day program is excellent! Keep it up!"

"What is most needed is smaller classes so teachers can work with each child on his own level. My child is bright, and I hear from other parents of bright youngsters that these kids are ready to move on to new material--not usually covered in kindergarten. My child was ready to read, but got mostly pre-reading activities. What he did gain in kindergarten was a feeling that he would handle school and its social situations well."

"It is great for children who are ready to be away from home for that length of time."

"Half-day kindergarten doesn't provide enough time for anything productive. Too many children are getting more from preschool than kindergarten provided."

"I feel for a child to attend full-day kindergarten, that child should be at least 5½ years old and should attend a nursery school for at least one year."

"I think all kids should have all-day kindergarten because it helps them to get better adjusted and it helps prepare them for the first grade. They really learn more from the all-day program. As far as the half-day program, I found they didn't learn as much...because they no more get to school, than it's time to go home again."

"My little girl went a half day for one semester, and then they changed it to all day. I think it helped her a lot to get ready for all-day first grade!"

"Both my children have had full-day kindergarten and have sincerely benefitted. In the 1980s a good portion of the preschool population is attending day-cares and/or nursery schools; and they need the changes, the challenge, and have already

covered all the material (plus more) that their parents covered (those that are products of the 1950s) when they completed first grade. Times have changed and our schools must change accordingly. Full-day kindergarten is far superior to day-care centers--all day, every day."

"I have had two children that attended full-day kindergarten and two that attended half-day, and I feel that the two that attended full-day learned much more. I feel that all boys and girls this age should have the opportunity to attend full-day kindergarten."

"I was glad to see the full-day kindergarten in action. My older children were in half-day kindergarten and didn't have time to accomplish anything. I saw a great difference."

"It is impossible for us to know if our son learned more or developed more fully his learning skills by attending full-day kindergarten. John attended the half-day program for the first semester and the full-day program for the second semester. We feel that John became overtired at attending the full-day session. He often fell asleep coming home on the school bus, even though he had sufficient sleep each night. Our oldest son seemed to learn much more in kindergarten than our youngest did. Although, he attended the half-day session. We believe that the child's intelligence and the early development of his learning skills are more important in determining his success in kindergarten than the amount of time spent in the classroom."

"My first child started kindergarten in the first year of full-day, and I thought it was terrific. For him, not for me. It wasn't a baby-sitting service as I have a younger child entering kindergarten next year, and all of us are looking forward to it. It is a big job for the teacher, but the teacher is patient and terrific!"

"It is difficult to answer your questionnaire accurately because there is really no basis for comparison. In almost any of the categories, the same end result might have been achieved in a half-day program; and I am still not sure which is the better program. I don't think that being in school all day necessarily means a child will learn more because there are too many variables--the age of the child, the teacher, and the classroom situation, all play a part. In short, I am still undecided about whether the full-day program is actually better for the child. Both of my children's kindergarten experiences have been good ones. But I don't think the fact that one was all day made it any better."

"The reason I was undecided about the first question is he had a very good teacher, and I thought she did well with the half-day session. It was the first year and we only had from

February to June and probably now they have a lot of things ironed out, and my child enjoyed the full day. When it first started I didn't know how it was going to work with one teacher and an aide but now at our school we have two kindergartens and I'm glad because the children are probably being prepared for first grade!"

"I think it was great!"

"I was really pleased with my son and the all-day kindergarten. He did learn a lot more from the all-day kindergarten I thought than if he went to the half-a-day. He did pick things up quickly. And I was really pleased with his teachers. They took an interest in the children."

"Full-day kindergarten prepares a child better than half-day. They have more time to spend on each subject they are to learn about. It also prepares them to be away from home for a full day since first grade starts their full day anyway. I have talked with other mothers about this, and I have not heard one negative word about full-day kindergarten."

"I was very pleased with the program and have recommended it to many other parents. Today's children are ready to learn more at an earlier age, and I feel this program touched on each subject just enough to give the children that extra boost they need for grade school. I've compared my child's (now a third grader) progress with that of children who only go to a half-day kindergarten or parochial school, and he is way ahead of them. I have nothing but praise for the full-day program."

Attendance, Attitudes, Conduct, Nonpromotion, and Self-Concept

Attendance

To determine if full-day was more tiring than half-day kindergarten, causing more illness or more absences toward the end of the week, attendance by the day was compiled for the 1979-1980 experimental and control groups. To learn if there were any significant differences in the attendance patterns of both groups, the chi-square test of independence was used. The number of absences of full-day and half-day kindergarten students for each day of the week is shown in Table IX.

TABLE IX

ABSENCES OF THE 1979-1980 FULL-DAY AND HALF-DAY KINDERGARTEN STUDENTS BY THE DAY

Days	Full-Day Mean	Half-Day Mean
Monday	21.15	23.81
Tuesday	19.68	20.89
Wednesday	16.85	18.63
Thursday	18.38	19.19
Friday	22.15	24.96

Chi-square was equal to 0.05 which indicates there was no significant difference between the attendance patterns by days of full-day and half-day kindergarten students. Both groups had more absences on Monday and Friday with fewer on Wednesday.

Table X shows the number of absences during three nine-week periods for both groups.

TABLE X

1979-1980 ABSENCES DURING THREE NINE-WEEK PERIODS FOR FULL-DAY AND HALF-DAY KINDERGARTEN STUDENTS

Dates	Full-Day Mean	Half-Day Mean
9/4-11/2	13.69	17.24
11/5-1/25	19.94	27.80
1/28-3/28	24.48	24.14

Chi-square was equal to 0.78 showing that there was no significant difference in the attendance patterns during a nine-week period between full-day and half-day kindergarten students. However, it should be noted that there were more absences as the year progressed for both groups and that half-day students tended to have more absences than full-day students around the holidays.

Table XI reveals the total absences for the 27-week period.

Half-day students had 10.8 percent absences for the 27-week period as compared to 8.5 percent absences for the full-day students. It should be noted, however, that the number used was not constant throughout the year due to the changing kindergarten enrollments. Therefore, this is only an indication that the total absenteeism for half-day was higher than for full-day kindergarten.

TABLE XI

1979-1980 TOTAL ABSENCES OF

FULL-DAY AND HALF-DAY

KINDERGARTEN STUDENTS

Full-Day				Half-Day			
School	N	Mean	%	Random Sampling	N	Mean	%
1	56	2.50	4.5	1	52	9.54	18.3
2	73	7.62	10.4	2	41	4.09	10.0
3	38	2.02	5.3	3	68	4.85	7.1
4	62	6.51	10.5	4	38	2.98	7.8
Total	229	19.40	8.5	Total	199	21.47	10.8

The attendance of students in grades six, seven, and eight who attended full-day and half-day kindergarten in the 1978-1979 school year was compared. Table XII shows the mean of the number of days absent for each group during the 1984-1985, 1985-1986, and 1986-1987 school years. The statistical *t*-test was performed to determine whether there was a significant difference between the full-day and half-day mean scores.

TABLE XII

SIXTH, SEVENTH, AND EIGHTH GRADE DAYS ABSENT

FOR 1978-1979 KINDERGARTEN STUDENTS

Area	Full-Day N	Mean	S.D.	Half-Day N	Mean	S.D.	*t*	*p*
(Grade 6) Days Absent 1984-1985	99	8.26	8.41	96	8.07	8.07	0.16	N.S.
(Grade 7) Days Absent 1985-1986	93	9.31	7.56	107	9.43	7.10	-0.11	N.S.
(Grade 8) Days Absent 1986-1987	94	9.67	9.48	101	9.69	7.40	-0.02	N.S.

The mean of the number of days absent for students who attended full-day kindergarten was 8.26 in the sixth grade, 9.31 in the seventh grade, and 9.67 in the eighth grade. This compares to the half-day kindergarten students whose mean of the days absent was 8.07 in the sixth grade, 9.43 in the seventh grade, and 9.69 in the eighth grade. None of the differences were statistically significant. Therefore, the results suggest that there was no overall difference in attendance in the sixth, seventh, and eighth grades between students who attended full-day kindergarten and those who attended half-day kindergarten.

Student Questionnaire

The attitudes of third and fourth grade children who had completed kindergarten in 1979 or 1980 were obtained from a ten-item Student Questionnaire. Nine of the items called for yes or no responses; the tenth item asked, " What do you remember most about your year in kindergarten?"

Table XIII shows the responses by third grade children to the first nine questions listed on the Student Questionnaire. There were 111 children who were given the questionnaire. In some instances the children did not respond, so the number of answers for questions varies from 104 to 111.

Eighty-five percent of the children felt that they were more grown up when they attended school full day instead of half day. Eighty-nine percent of the children were not concerned about being away from their mothers or sitters when they attended kindergarten full day.

The children were able to eat in the cafeteria when they attended full-day kindergarten, and 89 percent of the children said that they liked eating there.

Several questions concerned activities that children were able to do because the full-day kindergarten allowed more time. The children were very positive that the extra time was useful. They responded 100 percent that they were glad to have had more time to use blocks, paints, and the playhouse; 97 percent that it was easier to learn how to read in the first grade; 98 percent that the mathematics work helped them in first grade; and 97 percent that they liked having music and art more often.

Thirty-five percent of the children were frightened when they entered the first grade; and 65 percent indicated that they were not frightened. All 107 children who responded to item 9 stated that they were glad they had gone to full-day kindergarten.

Table XIV lists the number and percentage of the first response of children when asked, " What do you remember most about your year in kindergarten?" Children most frequently gave responses that were in the area of play, which included the playhouse, toys, playing outside, or just playing. The 25 percent of responses supports the importance of play, at least as first-choice activities of children.

TABLE XIII

GRADE THREE

STUDENT QUESTIONNAIRE RESULTS

FOR 1979-1980 FULL-DAY KINDERGARTEN GROUP

ITEMS 1-9

Item	N	Yes		No	
		f	%	f	%
1. Did you feel more grown up when you got to go to school all day?	104	88	85	16	15
2. If you went to school only half day, you would be able to spend more time with mother or your sitter. When you went to full-day kindergarten, did it bother you to be away from them?	105	12	11	93	89
3. Half-day students do not get to eat in the cafeteria. Did you like eating in the school cafeteria when you went to full-day kindergarten?	111	99	89	12	11
4. Half-day students are only able to spend a short time each day using the blocks, paints, and playhouse. Were you glad you went to school a full day so you could spend more time with these activities?	108	108	100	0	0
5. Because you had more time to learn your letter names and sounds than those students in half-day kindergarten, do you think it was easier for you to learn how to read in the first grade?	108	105	97	3	3
6. In full-day kindergarten, you were more often able to work on math activities. Due to this you were able to work on adding and subtracting. Did this help you in first grade?	106	104	98	2	2
7. A student that goes to school half day gets to have art or music two or three times a week. When you were in full-day kindergarten you were able to have those subjects more often. Did you like this?	107	104	97	3	3
8. Some children are frightened when they start first grade because they have not been away from home for a full day. Were you frightened when you went to the first grade?	108	38	35	70	65
9. Are you glad you went to full-day kindergarten?	107	107	100	0	0

100 mm
A5
1.0
1.1
1.25
1.4
1.6
1.8
2.0
2.2
2.5
2.8
3.2
3.6
4.0
1.0 mm
1.5 mm
2.0 mm
ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890

TABLE XIV

GRADE THREE

STUDENTS' FIRST RESPONSES TO ITEM 10*

FOR 1979-1980 FULL-DAY KINDERGARTEN GROUP

Response	f	%
Play	27	25
Painting	17	16
Group Activities	10	9
Working with Papers	9	8
Storytime	7	6
Being Fun	7	6
Art Projects	6	6
Nothing Special	6	6
Music	5	5
Nice Teacher	4	4
Rocking in Rocker	3	3
Snacks	2	2
Field Trips	2	2
Show and Tell	1	1
Nap Time	1	1
Doing Tests	1	1
N	108	

*Item 10: What do you remember most about your year in kindergarten?

Table XV shows the responses of fourth grade children to the first nine questions listed on the Student Questionnaire. Seventy-one of the children who attended full-day kindergarten were in school on the days that the questionnaire was administered. The number of responses varied from 68 to 71 because the children did not respond to all of the items.

Ninety percent of the children felt that they were more grown up when they attended school full day instead of half day. Seventy-seven percent of the children were not concerned about being away from their mothers or sitters when they attended kindergarten full day.

Eighty-four percent of the children indicated that they liked eating in the cafeteria as a result of the full-day kindergarten program.

Children had more time for play, reading, mathematics, art, and music in the full-day program. They responded 96 percent that they were glad to have had more time to use blocks, paints, and the playhouse; 97 percent that it was easier to learn how to read in the first grade; 96 percent that the mathematics work helped them in first grade; and 96 percent that they liked having music and art more often.

Thirty-nine percent of the children were frightened when they entered first grade, and 61 percent indicated that they were not frightened. Ninety-nine percent stated that they were happy that they attended full-day kindergarten.

Table XVI lists the number and percentage of the first response of students to question 10. Thirty percent of the children listed play as what they remembered most about their year in kindergarten.

It was not the intent of this report to compare students' attitudes between full-day and half-day kindergarten but rather to determine whether or not the students who attended full-day kindergarten did have positive attitudes toward their kindergarten experience after completing second or third grade. The results of the Student Questionnaire for grades three and four indicate that children had positive attitudes toward their full-day kindergarten experience. It should be noted that a similar questionnaire used with the control group might have revealed the same attitudes toward a half-day kindergarten experience.

Survey of School Attitudes

The Survey of School Attitudes, Intermediate Level, Form A, was given in the fall of 1982 to the experimental and control groups of children who attended kindergarten in 1978-1979. The statistical t-test was performed to determine if there was a significant difference between the full-day and half-day mean scores. The results are summarized in Table XVII which shows the mean scores for both groups and the results of the t-tests.

TABLE XV

GRADE FOUR

STUDENT QUESTIONNAIRE RESULTS

FOR 1978-1979 FULL-DAY KINDERGARTEN GROUP

ITEMS 1-9

Item	N	Yes		No	
		f	%	f	%
1. Did you feel more grown up when you got to go to school all day?	70	63	90	7	10
2. If you went to school only half day, you would be able to spend more time with mother or your sitter. When you went to full-day kindergarten, did it bother you to be away from them?	71	16	23	55	77
3. Half-day students do not get to eat in the cafeteria. Did you like eating in the school cafeteria when you went to full-day kindergarten?	69	58	84	11	16
4. Half-day students are only able to spend a short time each day using the blocks, paints, and playhouse. Were you glad you went to school a full day so you could spend more time with these activities?	71	68	96	3	4
5. Because you had more time to learn your letter names and sounds than those students in half-day kindergarten, do you think it was easier for you to learn how to read in the first grade?	69	67	97	2	3
6. In full-day kindergarten, you were more often able to work on math activities. Due to this you were able to work on adding and subtracting. Did this help you in first grade?	68	65	96	3	4
7. A student that goes to school half day gets to have art or music two or three times a week. When you were in full-day kindergarten you were able to have those subjects more often. Did you like this?	71	68	96	3	4
8. Some children are frightened when they start first grade because they have not been away from home for a full day. Were you frightened when you went to the first grade?	71	28	39	43	61
9. Are you glad you went to full-day kindergarten?	69	68	99	1	1

TABLE XVI

GRADE FOUR

STUDENTS' FIRST RESPONSES TO ITEM 10*

FOR 1978-1979 FULL-DAY KINDERGARTEN GROUP

Response	f	%
Play	21	30
Painting	10	14
Music	7	10
Group Activities	7	10
Nice Teachers	6	8
Working with Papers	5	7
Art Projects	5	7
Storytime	3	4
Fun	2	3
Had a Best Friend	2	3
Birthday Time	1	1
Nothing Special	1	1
Doing Tests	1	1
N	71	

*Item 10: What do you remember most about your year in kindergarten?

TABLE XVII

1982 SCHOOL ATTITUDES AMONG 1978-1979 KINDERGARTEN STUDENTS

Subject	Group	N	Mean	S.D.	t	p
Mathematics	Full-Day	77	20.35	7.59	1.03	N.S.
	Half-Day	96	19.16	7.48		
Reading	Full-Day	77	21.53	6.68	0.28	N.S.
	Half-Day	96	21.24	6.73		
Science	Full-Day	77	23.36	5.35	2.34	< .05
	Half-Day	96	21.29	6.05		
Social Studies	Full-Day	77	22.70	6.06	1.61	N.S.
	Half-Day	96	21.14	6.50		

The mean scores for the full-day kindergarten children were higher than the half-day kindergarten children in all four subject areas, but they were significantly different only in science.

In the fall of 1982 the Survey of School Attitudes, Primary Level, Form A, was given to children in the experimental and control groups who attended kindergarten in 1979-1980. Table XVIII gives the mean scores for both groups and the results of the t-tests.

In all four subtest areas, the mean scores for children who attended half-day kindergarten in 1979-1980 were higher than those for children who attended full-day kindergarten, and the scores were significantly higher in social studies.

The results from the Survey of School Attitudes suggest that there was no overall difference in school attitudes between the children who attended full-day kindergarten and those who attended half-day kindergarten. One full-day group scored higher than the half-day group in every subject area, and the other full-day group scored lower than the half-day group in every subject area.

TABLE XVIII

1982 SCHOOL ATTITUDES AMONG 1979-1980

KINDERGARTEN STUDENTS

Subject	Group	N	Mean	S.D.	t	p
Mathematics	Full-Day Half-Day	95 87	22.98 23.93	5.49 5.74	1.14	N.S.
Reading	Full-Day Half-Day	95 87	21.20 22.15	6.48 5.95	1.02	N.S.
Science	Full-Day Half-Day	95 87	22.98 23.63	5.47 5.25	0.82	N.S.
Social Studies	Full-Day Half-Day	95 87	21.78 23.76	6.53 5.70	2.16	< .05

Report Card Conduct Marks

The conduct marks on report cards for the first, second, and third grades for the 1978-1979 experimental and control groups and the first and second grade report card conduct marks for the 1979-1980 experimental and control groups are presented in this section.

Children in Evansville receive report card marks four times each year in 12 conduct areas. The marks for those 12 areas are S (Satisfactory Progress), I (Improvement Shown), and N (Needs Improvement). The order of these marks from high to low is S, I, N. At the end of each school year, report card conduct marks are recorded on a composite report along with an average of these marks, and these averages were used to compare the groups in this study.

The chi-square test of independence was used to evaluate whether conduct marks and group membership were independent factors. The results of the test are summarized in Tables XIX, XX, XXI, XXII, XXIII, and XXIV.

Table XIX shows the first grade report card conduct mark results for the 1978-1979 experimental and control groups.

TABLE XIX

FIRST GRADE CONDUCT MARKS

FOR 1978-1979 KINDERGARTEN STUDENTS

Conduct Area	Group	N	Satisfactory		Improvement Shown		Needs Improvement		Chi-Square	p
			f	%	f	%	f	%		
Respects Authority	Full-Day	79	69	87	5	6	5	6	1.48	N.S.
	Half-Day	103	95	92	3	3	5	5		
Shows Self-Confidence	Full-Day	79	70	89	5	6	4	5	3.69	N.S.
	Half-Day	103	80	78	13	13	10	10		
Uses Self-Control	Full-Day	79	53	67	11	14	15	19	2.54	N.S.
	Half-Day	103	77	75	15	15	11	11		
Follows Directions	Full-Day	79	63	80	10	13	6	8	1.95	N.S.
	Half-Day	103	86	83	7	7	10	10		
Works Independently	Full-Day	79	53	67	12	15	14	8	2.07	N.S.
	Half-Day	103	79	77	11	11	13	13		
Uses Time Wisely	Full-Day	79	54	68	15	19	10	13	1.91	N.S.
	Half-Day	103	77	75	12	12	14	14		
Uses Materials Wisely	Full-Day	79	76	96	2	3	1	1	4.37	N.S.
	Half-Day	103	91	88	4	4	8	8		
Puts Forth Best Effort	Full-Day	79	66	84	3	4	10	13	8.67	< .05
	Half-Day	103	69	67	17	17	17	17		
Works Well With Others	Full-Day	79	70	89	2	3	7	9	5.34	N.S.
	Half-Day	103	84	82	12	12	7	7		
Listens Attentively	Full-Day	79	64	81	8	10	7	9	0.64	N.S.
	Half-Day	103	88	85	8	8	7	7		
Obeys Playground Rules	Full-Day	79	74	94	0	0	5	6	6.13	< .05
	Half-Day	103	87	84	7	7	9	9		
Respects Property of Others	Full-Day	79	76	96	2	3	1	1	6.60	< .05
	Half-Day	103	87	84	10	10	6	6		

The results show that the full-day kindergarten children had a higher percentage of satisfactory marks in first grade in the following six conduct areas: shows self-confidence, uses materials wisely, puts forth best effort, works well with others, obeys playground rules, and respects property of others. The half-day kindergarten children had a higher percentage of satisfactory conduct marks in the other six conduct areas: respects authority, uses self-control, follows directions, works independently, uses time wisely, and listens attentively.

For the 24 less-than-satisfactory conduct marks, the full-day kindergarten children received a lower percentage of I (Improvement Shown) and N (Needs Improvement) conduct marks in 15 conduct areas, and the children who attended half-day kindergarten received a lower percentage of less-than-satisfactory conduct marks in nine areas.

The chi-square test of independence revealed that the conduct marks assigned and membership in the experimental and control groups were significantly associated in three conduct areas in which the full-day kindergarten children received higher conduct marks. These areas were puts forth best effort, obeys playground rules, and respects property of others.

Table XX contains the second grade report card conduct marks for the 1978-1979 experimental and control groups.

The results show that in all 12 conduct areas the children who attended full-day kindergarten received a larger percentage of satisfactory conduct marks in second grade than did children who attended half-day kindergarten. The full-day kindergarten children also had a lower percentage of less-than-satisfactory conduct marks in 21 of the 24 conduct areas that were rated I (Improvement Shown) or N (Needs Improvement).

The chi-square test of independence revealed that the conduct marks assigned and membership in the experimental and control groups were significantly associated in seven conduct areas in which the full-day kindergarten children received higher conduct marks. These areas were shows self-confidence, follows directions, works independently, uses time wisely, puts forth best effort, obeys playground rules, and respects property of others.

Table XXI shows the third grade report card conduct marks for the 1978-1979 experimental and control groups.

The third grade conduct marks on report cards for children who attended full-day kindergarten in 1978-1979 continued to be higher than for children who attended half-day kindergarten. The results show that the experimental group children had a higher percentage of satisfactory marks than the control group children in 11 of the 12 areas with the control group receiving higher conduct marks only in the area of works well with others. The experimental group had a lower percentage of less-than-satisfactory conduct marks in 21 of the 24 conduct areas that were rated I (Improvement Shown) or N (Needs Improvement).

TABLE XX

SECOND GRADE CONDUCT MARKS

FOR 1978-1979 KINDERGARTEN STUDENTS

Conduct Area	Group	N	Satisfactory		Improvement Shown		Needs Improvement		Chi-Square	p
			f	%	f	%	f	%		
Respects Authority	Full-Day	76	76	100	0	0	0	0	4.03	N.S.
	Half-Day	97	92	95	3	3	2	2		
Shows Self-Confidence	Full-Day	76	75	99	1	1	0	0	22.28	< .01
	Half-Day	97	70	72	11	11	16	16		
Uses Self-Control	Full-Day	76	52	68	7	9	17	22	1.48	N.S.
	Half-Day	97	58	60	13	13	26	27		
Follows Directions	Full-Day	76	72	95	1	1	3	4	11.09	< .01
	Half-Day	97	74	76	8	8	15	15		
Works Independently	Full-Day	76	71	93	1	1	4	5	13.77	< .01
	Half-Day	97	69	71	4	4	24	25		
Uses Time Wisely	Full-Day	76	60	79	5	7	11	14	13.92	< .01
	Half-Day	97	50	52	17	18	30	31		
Uses Materials Wisely	Full-Day	76	72	95	1	1	3	4	0.86	N.S.
	Half-Day	97	89	92	1	1	7	7		
Puts Forth Best Effort	Full-Day	76	66	87	1	1	9	12	8.00	< .05
	Half-Day	97	69	71	10	10	18	19		
Works Well With Others	Full-Day	76	72	95	2	3	2	3	1.80	N.S.
	Half-Day	97	90	93	1	1	6	6		
Listens Attentively	Full-Day	76	67	88	8	11	1	1	4.27	N.S.
	Half-Day	97	78	80	11	11	8	8		
Obeys Playground Rules	Full-Day	76	73	96	1	1	2	3	10.99	< .01
	Half-Day	97	77	79	14	14	6	6		
Respects Property of Others	Full-Day	76	76	100	0	0	0	0	8.32	< .05
	Half-Day	97	87	90	5	5	5	5		

TABLE XXI

THIRD GRADE CONDUCT MARKS

FOR 1978-1979 KINDERGARTEN STUDENTS

Conduct Area	Group	N	Satisfactory		Improvement Shown		Needs Improvement		Chi-Square	t
			f	%	f	%	f	%		
Respects Authority	Full-Day	74	73	99	1	1	0	0	4.01	N.S.
	Half-Day	92	85	92	3	3	4	4		
Shows Self-Confidence	Full-Day	74	73	99	1	1	0	0	13.62	< .01
	Half-Day	92	74	80	9	10	9	10		
Uses Self-Control	Full-Day	74	51	69	14	19	9	12	3.98	N.S.
	Half-Day	92	60	65	11	12	21	23		
Follows Directions	Full-Day	74	70	95	2	3	2	3	14.74	< .01
	Half-Day	92	66	72	8	9	18	20		
Works Independently	Full-Day	74	69	93	1	1	4	5	3.96	N.S.
	Half-Day	92	78	85	7	8	7	8		
Uses Time Wisely	Full-Day	74	62	84	4	5	8	11	6.20	< .05
	Half-Day	92	62	67	7	8	23	25		
Uses Materials Wisely	Full-Day	74	71	96	3	4	0	0	5.55	N.S.
	Half-Day	92	86	93	1	1	5	5		
Puts Forth Best Effort	Full-Day	74	68	92	0	0	6	8	12.49	< .01
	Half-Day	92	66	72	9	10	17	18		
Works Well With Others	Full-Day	74	69	93	0	0	5	7	5.31	N.S.
	Half-Day	92	89	97	2	2	1	1		
Listens Attentively	Full-Day	74	71	96	1	1	2	3	4.09	N.S.
	Half-Day	92	80	87	3	3	9	10		
Obeys Playground Rules	Full-Day	74	74	100	0	0	0	0	8.56	< .05
	Half-Day	92	82	89	8	9	2	2		
Respects Property of Others	Full-Day	74	74	100	0	0	0	0	4.15	N.S.
	Half-Day	92	87	95	2	2	3	3		

The chi-square test of independence revealed that the conduct marks assigned and membership in the experimental and control groups were significantly associated in five conduct areas in which the full-day kindergarten children received higher conduct marks. These areas were shows self-confidence, follows directions, uses time wisely, puts forth best effort, and obeys playground rules.

Table XXII shows the first grade report card conduct marks for the 1979-1980 experimental and control groups.

The results show that the children who attended full-day kindergarten received a higher percentage of satisfactory conduct marks in first grade in 10 of the 12 conduct areas. They also received a lower percentage of less-than-satisfactory conduct marks in 17 of the 24 conduct areas that were rated I (Improvement Shown) or N (Needs Improvement).

The chi-square test of independence revealed that the conduct marks assigned and membership in the experimental and control groups were significantly associated in four conduct areas in which the full-day kindergarten children received higher conduct marks. These areas were shows self-confidence, works well with others, obeys playground rules, and respects property of others. The chi-square test of independence also revealed that the conduct marks assigned and membership in the experimental and control groups were significantly associated in one area, uses self-control, in which the half-day kindergarten children received higher conduct marks.

Table XXIII shows the second grade report card conduct marks for the 1979-1980 experimental and control groups.

The table shows that the children who attended full-day kindergarten received a higher percentage of satisfactory conduct marks in second grade in 11 of the 12 conduct areas. They also received a lower percentage of less-than-satisfactory conduct marks in 21 of the 24 conduct areas that were rated I (Improvement Shown) or N (Needs Improvement).

The chi-square test of independence revealed that the conduct marks assigned and membership in the experimental and control groups were significantly associated in six conduct areas in which the full-day kindergarten children received higher conduct marks. These areas were shows self-confidence, works independently, uses time wisely, listens attentively, obeys playground rules, and respects property of others.

Table XXIV summarizes the five preceding tables of first, second, and third grade conduct marks for the 1978-1979 kindergarten students and the first and second grade conduct marks for the 1979-1980 kindergarten students. It also lists the number of times that the full-day kindergarten students had higher percentages than the half-day kindergarten students.

TABLE XXII

FIRST GRADE CONDUCT MARKS

FOR 1979-1980 KINDERGARTEN STUDENTS

Conduct Area	Group	N	Satisfactory		Improvement Shown		Needs Improvement		Chi-Square	t
			f	%	f	%	f	%		
Respects Authority	Full-Day	114	101	89	6	5	7	6	1.24	N.S.
	Half-Day	112	104	93	4	4	4	4		
Shows Self-Confidence	Full-Day	114	107	94	4	4	3	3	15.54	< .01
	Half-Day	112	84	75	19	17	9	8		
Uses Self-Control	Full-Day	114	60	53	28	25	26	23	9.91	< .01
	Half-Day	112	75	67	28	25	9	8		
Follows Directions	Full-Day	114	98	86	12	11	4	4	2.08	N.S.
	Half-Day	112	89	79	15	13	8	7		
Works Independently	Full-Day	114	89	78	12	11	13	11	0.46	N.S.
	Half-Day	112	84	75	15	13	13	12		
Uses Time Wisely	Full-Day	114	76	67	24	21	14	12	0.07	N.S.
	Half-Day	112	74	66	25	22	13	12		
Uses Materials Wisely	Full-Day	114	109	96	3	3	2	2	4.13	N.S.
	Half-Day	112	99	88	9	8	4	4		
Puts Forth Best Effort	Full-Day	114	86	75	17	15	11	10	4.43	N.S.
	Half-Day	112	70	63	25	22	17	15		
Works Well With Others	Full-Day	114	104	91	4	4	6	5	6.07	< .05
	Half-Day	112	96	86	13	12	3	3		
Listens Attentively	Full-Day	114	95	83	11	10	8	7	0.68	N.S.
	Half-Day	112	92	82	14	13	6	5		
Obeys Playground Rules	Full-Day	114	109	96	4	4	1	1	10.47	< .01
	Half-Day	112	92	82	17	15	3	3		
Respects Property of Others	Full-Day	114	111	97	2	2	1	1	8.96	< .05
	Half-Day	112	97	87	11	10	4	4		

TABLE XXIII

SECOND GRADE CONDUCT MARKS FOR 1979-1980 KINDERGARTEN STUDENTS

Conduct Area	Group	N	Satisfactory		Improvement Shown		Needs Improvement		Chi-Square	t
			f	%	f	%	f	%		
Respects Authority	Full-Day	110	103	94	3	3	4	4	1.62	N.S.
	Half-Day	102	98	96	3	3	1	1		
Shows Self-Confidence	Full-Day	110	109	99	0	0	1	1	9.70	< .01
	Half-Day	102	91	89	1	1	10	10		
Uses Self-Control	Full-Day	110	67	61	14	13	29	26	0.38	N.S.
	Half-Day	102	58	57	15	15	29	28		
Follows Directions	Full-Day	110	98	89	6	5	6	5	2.70	N.S.
	Half-Day	102	83	81	8	8	11	11		
Works Independently	Full-Day	110	97	88	8	7	5	5	21.53	< .01
	Half-Day	102	63	62	15	15	24	24		
Uses Time Wisely	Full-Day	110	72	65	12	11	26	24	7.42	< .05
	Half-Day	102	48	47	19	19	35	34		
Uses Materials Wisely	Full-Day	110	102	93	2	2	6	5	3.12	N.S.
	Half-Day	102	93	91	6	6	3	3		
Puts Forth Best Effort	Full-Day	110	78	71	8	7	24	22	5.25	N.S.
	Half-Day	102	58	57	15	15	29	28		
Works Well With Others	Full-Day	110	100	91	5	5	5	5	3.26	N.S.
	Half-Day	102	85	83	11	11	6	6		
Listens Attentively	Full-Day	110	92	84	11	10	7	6	18.57	< .01
	Half-Day	102	58	57	30	29	14	14		
Obeys Playground Rules	Full-Day	110	109	99	0	0	1	1	49.88	< .01
	Half-Day	102	62	61	20	20	20	20		
Respects Property of Others	Full-Day	110	108	98	1	1	1	1	27.44	< .01
	Half-Day	102	75	74	21	21	6	6		

TABLE XXIV

SUMMARY OF HIGHER PERCENTS OF CONDUCT MARKS AND CASES IN WHICH FAVORABLE MARKS AND GROUP MEMBERSHIP WERE SIGNIFICANTLY ASSOCIATED FROM TABLES XIX TO XXIII

Conduct Area	Group	Higher Percents			Significant Association Between Favorable Marks and Group Membership
		Satis-factory	Im-provement Shown	Needs Im-provement	
Respects Authority	Full-Day Half-Day	2 3	2 2	3 2	0 0
Shows Self-Confidence	Full-Day Half-Day	5 0	0 5	0 5	4 0
Uses Self-Control	Full-Day Half-Day	3 2	1 3	2 3	0 1
Follows Directions	Full-Day Half-Day	4 1	1 4	0 5	2 0
Works Inde-pendently	Full-Day Half-Day	4 1	1 4	0 5	2 0
Uses Time Wisely	Full-Day Half-Day	4 1	1 4	0 4	3 0
Uses Materi-als Wisely	Full-Day Half-Day	5 0	1 3	1 4	0 0
Puts Forth Best Effort	Full-Day Half-Day	5 0	0 5	0 5	3 0
Works Well With Others	Full-Day Half-Day	4 1	1 4	3 2	1 0
Listens Attentively	Full-Day Half-Day	4 1	1 3	2 3	1 0
Obeys Play-ground Rules	Full-Day Half-Day	5 0	0 5	0 5	5 0
Respects Property of Others	Full-Day Half-Day	5 0	0 5	0 5	4 0
Total	Full-Day Half-Day	50 10	9 47	11 48	25 1

The results show that children who attended full-day kindergarten received a higher percentage of satisfactory conduct marks 50 times out of a possible total of 60. The full-day kindergarten children received less-than-satisfactory conduct marks 20 times out of a possible total of 120. There were five instances in which the number of less-than-satisfactory conduct marks was the same.

The chi-square test of independence was utilized five times for each of the 12 conduct areas. The test revealed that the conduct marks assigned and membership in the experimental and control groups were significantly associated 25 times out of 60 in which the full-day kindergarten children received higher conduct marks and in one area (uses self-control) in which the half-day kindergarten children received higher conduct marks. The full-day kindergarten group received significantly favorable conduct marks for these areas: obeys playground rules (5), shows self-confidence (4), respects property of others (4), uses time wisely (3), puts forth best effort (3), follows directions (2), works independently (2), works well with others (1), and listens attentively (1).

Nonpromotion

Children enrolled in kindergarten in the four experimental and four control schools in June 1979 and June 1980 were compared to the grade levels of children in June 1982 to identify those promoted to a higher grade and those nonpromoted. The nonpromoted information refers only to those children who were still enrolled in the same school in June 1982 and does not involve children in the 1978-1979 or 1979-1980 kindergarten groups who moved to other schools. Children who were nonpromoted as a result of being placed in special education were included in the nonpromotion totals.

Table XXV shows the rate of nonpromotion for the 1978-1979 and 1979-1980 experimental and control groups.

TABLE XXV
RATE OF NONPROMOTION FOR
1978-1979 AND 1979-1980 KINDERGARTEN STUDENTS

Group	N	Promoted		Nonpromoted		Chi-Square	p
		f	%	f	%		
1978-1979							
Full-Day	81	74	91	7	9	4.28	<.01
Half-Day	108	87	81	21	19		
1979-1980							
Full-Day	115	110	96	5	4	9.26	<.01
Half-Day	114	95	83	19	17		

The results show that a higher percentage of children were nonpromoted from the group of children who attended half-day kindergarten. Nineteen percent of the children who attended half-day kindergarten in 1978-1979 were nonpromoted at the end of kindergarten, grade one, grade two, or grade three; and 9 percent of the children who attended full-day kindergarten were nonpromoted. Seventeen percent of the children who attended half-day kindergarten in 1979-1980 were nonpromoted at the end of kindergarten, grade one, or grade two; and 4 percent of the children who attended full-day kindergarten were nonpromoted.

The chi-square test of independence revealed that the probability was less than 1 in 100 that the observed findings could have occurred by chance and that the rate of nonpromotion and membership in the experimental and control groups had a significant association.

Table XXVI shows the 1988 status of the 1978-1979 and 1979-1980 experimental and control groups including promotion, nonpromotion, special education, and withdrawal from the school system. The percentages for the full-day students varied from 53 to 58 percent promoted, 7 to 9 percent nonpromoted, 4 to 6 percent placed in special education, and 30 to 32 percent withdrawn from the school system. The percentages for the half-day students varied from 50 to 52 percent promoted, 9 to 15 percent nonpromoted, 2 to 3 percent placed in special education, and 30 to 38 percent withdrawn from the school system.

TABLE XXVI

STATUS OF 1978-1979 and 1979-1980 KINDERGARTEN STUDENTS IN 1988

Group	N	Promoted		Nonpromoted		Special Education		Withdrawn	
		f	%	f	%	f	%	f	%
1978-1979									
Full-Day	181	96	53	17	9	10	6	58	32
Half-Day	213	107	50	20	9	5	2	81	38
1979-1980									
Full-Day	223	130	58	15	7	8	4	70	30
Half-Day	197	102	52	30	15	6	3	59	30

The chi-square for the 1978-1979 group was 3.74 and not significant. The frequencies in each category were found to be independent of membership in the full- or half-day group.

For the 1979-1980 group, the chi-square was 8.02. There is less than 5 percent probability that the frequencies in each category were independent of the full- or half-day kindergarten group membership.

Piers-Harris Children's Self-Concept Scale

The Piers-Harris Children's Self-Concept Scale was administered to children in both the experimental and control groups in the fall of 1982 when students from 1978-1979 were in fourth grade and students from 1979-1980 were in third grade. The statistical *t*-test was performed to determine if there was a significant difference between the means of the scores of the full-day and half-day kindergarten students. The results of the test are summarized in Table XXVII which shows the mean scores for all groups and the results of the *t*-tests.

TABLE XXVII

PIERS-HARRIS

CHILDREN'S SELF-CONCEPT SCALE

RESULTS

Group	N	Mean	S.D.	t	p
1978-1979					
Full-Day	78	58.99	12.21	1.98	< .05
Half-Day	93	54.81	14.83		
1979-1980					
Full-Day	98	60.48	12.19	1.08	N.S.
Half-Day	93	58.41	14.22		

The 1978-1979 full-day kindergarten children had higher self-concept scores than the half-day kindergarten children with a mean score of 58.99 compared to a mean score of 54.81 for half-day kindergarten children. The full-day kindergarten children scored significantly higher with the statistical t-test showing $t = 1.98$ and $p < .05$.

The 1979-1980 full-day kindergarten children had higher self-concept scores with a mean score of 60.48 compared to a mean score of 58.41 for half-day kindergarten children. However, the difference was not significantly higher with the statistical t-test showing $t = 1.08$.

Table XXVIII gives the equivalent percentile ranks and stanines for the mean scores of the experimental and control groups. All groups, full-day and half-day, had higher means than the normative sample for the test which had a mean of 51.84.

TABLE XXVIII

PERCENTILE RANKS AND STANINES

FOR PIERS-HARRIS CHILDREN'S

SELF-CONCEPT SCALE

Group	Mean	Percentile Rank	Stanine
1978-1979			
Full-Day	58.99	66	6
Half-Day	54.81	52	5
1979-1980			
Full-Day	60.48	69	6
Half-Day	58.41	63	6

The results of the Piers-Harris Children's Self-Concept Scale show that children who attended full-day kindergarten had higher scores than those who attended half-day kindergarten and that those scores were significantly higher for those children who were in the 1978-1979 group.

Achievement Tests

Task Observation Assessment

Data organized from the Kindergarten Task Observation Assessment given in May 1980 were used to obtain a limited indication of the psychomotor, affective, linguistic, and cognitive growth of full-day and half-day kindergarten students. This was developed to use firsthand observations as an evaluation technique. The statistical chi-square test of independence was used to determine whether there were any significant differences in the task performances of full-day and half-day kindergarten students. The number of acceptable and nonacceptable performances for each task is listed in Table XXIX, and a copy of the Task Observation Assessment with full-day kindergarten student responses and another with half-day kindergarten student responses follow.

TABLE XXIX

RESULTS OF TASK OBSERVATION ASSESSMENT

Task		Full-Day	Half-Day	Total	χ^2	p
1	Acceptable	40	40	80	0.00	N.S.
	Nonacceptable	0	0	0		
2	Acceptable	40	40	80	0.00	N.S.
	Nonacceptable	0	0	0		
3	Acceptable	34	31	65	0.33	N.S.
	Nonacceptable	6	9	15		
4	Acceptable	31	38	69	3.79	N.S.
	Nonacceptable	9	2	11		
5	Acceptable	26	22	48	0.47	N.S.
	Nonacceptable	14	18	32		
6	Acceptable	24	34	58	5.08	<.05
	Nonacceptable	16	6	22		
7	Acceptable	32	30	62	0.07	N.S.
	Nonacceptable	8	10			
8	Acceptable	39	36	75	0.85	N.S.
	Nonacceptable	1	4	5		
9	Acceptable	24	26	50	0.05	N.S.
	Nonacceptable	16	14	30		
10a	Acceptable	3	7	10	1.03	N.S.
	Nonacceptable	37	33	70		
10b	Acceptable	12	20	32	2.55	N.S.
	Nonacceptable	28	20	48		
10c	Acceptable	13	13	26	0.00	N.S.
	Nonacceptable	27	27			
11	Acceptable	30	37	67	3.31	N.S.
	Nonacceptable	10	3	13		

TASK OBSERVATION ASSESSMENT
KINDERGARTEN STUDENT
RESPONSES OF FULL-DAY KINDERGARTEN STUDENTS

School _____

Boy _____ Girl _____

a. Acceptable answer or performance
b. Nonacceptable answer or performance

	a	b
1. What color is this? (Red)_____	40	
2. Point to the letter that has a circle in it. (w b t l)_____	40	
3. If you saw your best friend standing on the playground crying, what would you do?_____	34	6
4. Stand on one foot as long as you can. Wait until I say go. (Acceptable if they stand for 8 seconds.)_____	31	9
5. Hop four times like a bunny._____	26	14
6. If you had one cookie and two of your friends asked for it, what would you do?_____	24	16
7. I'm going to ask you to do three things. Do them exactly like I say. Pat your head, touch your nose, and turn around._____	32	8
8. Draw a triangle for me._____	39	1
9. Listen carefully and see if you can tell me the answer to this problem. Billy's mother had four cookies. Billy ate one and Susie ate one. How many cookies are left?_____	24	16
10. What does this word say? (bat)_____	3	37
If they can't tell you, ask the following: Can you tell me what each letter says?_____	12	28
Now can you tell me the word?_____	13	27

11. Child was friendly and confident. 30 Child seemed shy and unsure. 10

TASK OBSERVATION ASSESSMENT
KINDERGARTEN STUDENT
RESPONSES OF HALF-DAY KINDERGARTEN STUDENTS

School _____

Boy _____ Girl _____

a. Acceptable answer or performance
b. Nonacceptable answer or performance

	a	b
1. What color is this? (Red)	40	0
2. Point to the letter that has a circle in it. (w b t l)	40	0
3. If you saw your best friend standing on the playground crying, what would you do?	31	9
4. Stand on one foot as long as you can. Wait until I say go. (Acceptable if they stand for 8 seconds.)	38	2
5. Hop four times like a bunny.	22	18
6. If you had one cookie and two of your friends asked for it, what would you do?	34	6
7. I'm going to ask you to do three things. Do them exactly like I say. Pat your head, touch your nose, and turn around.	30	10
8. Draw a triangle for me.	36	4
9. Listen carefully and see if you can tell me the answer to this problem. Billy's mother had four cookies. Billy ate one and Susie ate one. How many cookies are left?	26	14
10. What does this word say? (bat)	7	33
If they can't tell you, ask the following: Can you tell me what each letter says?	20	20
Now can you tell me the word?	13	27

11. Child was friendly and confident. 37 Child seemed shy and unsure. 3

After the chi-square test of independence was performed for each task to determine whether there were significant differences between the task performances, a significant difference was found in only one task. On number 6, half-day students performed at a significantly higher level than full-day students. However, the reader should realize that there was no right or wrong solution to this task. The acceptance of a child's solution was left to the discretion of the four teachers who administered the assessment. Therefore, the reliability of this task observation assessment is questionable.

Boehm Test of Basic Concepts

The Boehm Test of Basic Concepts was given only to full-day kindergarten students. Form A was given as a pretest in September of 1979, and Form B was administered in April of 1980 as a posttest. Scores obtained from Evansville's full-day kindergarten students were compared to the average socioeconomic norms established for the Boehm Test. The statistical t-test was performed on both the Evansville full-day students and the norm group to determine if there was any achievement difference between the two groups.

Summarized statistical analysis is shown in Table XXX.

TABLE XXX
1979-1980 BOEHM TEST SCORES FOR FULL-DAY KINDERGARTEN STUDENTS AND THE BOEHM MIDDLE SOCIOECONOMIC NORM GROUP

	Evansville Full-Day Kdgn. Students			Norm Group Middle Socioeconomic Level				
	N	Mean	Percentile Rank	N	Mean	Percentile Rank	t	p
Fall Testing	203	36.25	65	912	31.80	50	7.79	<.005
Spring Testing	227	43.07	85	453	35.30	45	15.29	<.005

When the mean score of the pretest (36.25) for the Evansville full-day kindergarten students was compared to the norm group, average socioeconomic status, the percentile rank was 65. This was compared to a 31.80 mean score for the norm group which had a percentile rank of 50. The full-day kindergarten students in Evansville ranked 15 percent higher than the norm group. This might have been due to Head Start and nursery school experiences. The mean score of full-day kindergarten students on the posttest (43.07) had a percentile rank of 85, using mid-year norms, and the norm group had a mean score of 35.30 which had a percentile rank of 45. Therefore, the full-day kindergarten students ranked 40 percent higher than the norm group. The change from a percentile rank of 65 to 85 suggested that the full-day kindergarten students progressed more than the norm group between the fall and mid-year testing. When the mean of the scores of the

fall testing for the full-day kindergarten students was compared with the mean of the scores of the spring administration, it was found that the spring scores were significantly higher ($t = 17.98$, $p < .005$). Boehm Test results from each of the full-day kindergarten schools are presented in Table XXXI for further evaluation.

TABLE XXXI
BOEHM TEST RESULTS BY SCHOOLS

School	N	ΣX	ΣX^2	$\bar{X}$	σ^2
School 1 - Room 1					
Pretest	26	833	27611	32.04	36.92
Posttest	33	1313	52977	39.79	22.98
School 1 - Room 2					
Pretest	28	983	35639	35.11	41.80
Posttest	38	1546	63480	40.68	15.74
School 2					
Pretest	52	1743	60613	33.51	42.92
Posttest	61	2620	114530	42.95	33.31
School 3					
Pretest	58	2216	87568	38.21	50.90
Posttest	56	2564	118128	45.79	13.34
School 4					
Pretest	39	1584	65412	40.62	28.35
Posttest	39	1735	78085	44.49	23.68

N = Number
ΣX = Sum of raw scores
ΣX^2 = Sum of raw scores squared
$\bar{X}$ = Mean
σ^2 = Variance

California Achievement Tests

Data collected from the administration of the California Achievement Tests in April of 1979 and in March of 1980 were analyzed to determine whether there were any differences in cognitive achievement between full-day and half-day kindergarten students. To determine whether or not the gains made by the full-day kindergarten students were significantly different from those made by the half-day kindergarten students, the statistical t-test was performed.

Mean scores for full-day and half-day kindergarten students on each subtest of the California Achievement Tests are compared in Table XXXII.

TABLE XXXII

MEAN SCORES OF FULL-DAY AND
HALF-DAY KINDERGARTEN STUDENTS
ON THE CAT IN 1979 AND 1980

Area	1978-1979				1979-1980			
	N=179* Mean	N=217** Mean	t	p	N=229* Mean	N=199** Mean	t	p
I. Listening for Information	14.44	12.62	6.92	<.005	13.83	13.02	3.23	<.005
II. Letter Forms	16.46	15.07	4.14	<.005	15.61	14.49	2.81	<.005
III. Letter Names	18.01	17.50	1.80	<.05	17.01	16.97	0.11	N.S.
II. & III. Alphabet Skills	34.46	32.58	3.31	<.005	32.79	31.50	1.77	<.05
IV. Letter Sounds	17.81	15.00	6.71	<.005	16.06	14.93	4.61	<.005
V. Visual Discrimination	14.61	13.29	4.01	<.005	14.53	13.67	2.416	<.01
VI. Sound Matching	24.59	22.97	3.20	<.005	23.90	23.16	1.35	<.05
V. & VI. Visual and Auditory Discrimination	39.20	36.34	4.01	<.005	38.63	36.81	2.30	<.05
I. & VI. Prereading	106.09	96.50	5.92	<.005	102.38	95.70	3.30	<.005
VII. Mathematics	21.51	17.29	7.64	<.005	20.04	17.05	7.02	<.005

* Full-day
**Half-day

Both years, 1979 and 1980, are included along with the results of the statistical t-test.

Results show that except in one case (Test III, 1979-1980) all subtests and combined scores were significantly higher for full-day kindergarten students when compared to the subtests and combined scores of half-day kindergarten students. In 1979 the mean score for prereading skills for full-day students was 106.09 compared to a 96.50 mean score for half-day kindergarten students. Therefore, the achievement level of full-day students was 9.59 points higher than half-day students. In 1980 the full-day mean score in prereading was 102.38 compared to 95.70 for half-day students, making full-day 6.68 points higher than half-day. The mathematics results show the full-day mean score higher by 4.22 points in 1979 and higher by 2.99 points in 1980.

This significantly higher achievement level, especially in prereading, seemed to indicate that full-day kindergarten students were better prepared academically for first grade than half-day kindergarten students.

Tables XXXIII and XXXIV show additional data that were obtained from the California Achievement Tests results used in summarizing the information found in Table XXXII.

Handwriting Evaluation Scale - Cursive

In the fall of 1982, a handwriting test was given to the 1978-1979 and 1979-1980 experimental and control groups. The Evaluation Scale--Cursive for grade three was used with the 1979-1980 group, and the Evaluation Scale--Cursive for grade four was used with the 1978-1979 group. Five areas were rated on the test. These were letter formation, slant, spacing, alignment and proportion, and line quality. The handwriting tests were rated 1, excellent; 2, good; 3, average; 4, fair; and 5, poor.

Table XXXV shows the ratings, mean scores, and results of the t-tests for the experimental and control groups.

The groups who attended half-day kindergarten in both 1978-1979 and 1979-1980 had lower mean scores. Because the rating of 1 was high, and 5, low, a lower mean score indicated that the half-day kindergarten children performed better on the Evaluation Scale--Cursive than did the children who attended full-day kindergarten. The 1979-1980 control group scored significantly higher than the experimental group with the statistical t-test showing $t = 2.08$ and $p < .05$.

Gates-MacGinitie Reading Tests

Follow-up data on the 1978-1979 full-day and half-day kindergarten students were obtained from the Gates-MacGinitie Reading Tests that were administered in April of 1980 to all first grade students. To make these results more valid, only full-day and half-day students who had attended kindergarten and first grade in the same school were used. The scores for the students are provided in Table XXXVI and Table XXXVII.

TABLE XXXIII

CAT SCORES OF FULL-DAY
AND HALF-DAY KINDERGARTEN
STUDENTS IN 1979

Area	Full-Day				Half-Day				F	p	t	p
	ΣX	ΣX^2	$\bar{X}$	σ^2	ΣX	ΣX^2	$\bar{X}$	σ^2				
Listening for Information	2542	37550	14.44	4.77	2738	36520	12.62	9.14	1.92	.01	6.92	.005
Letter Forms	2913	49411	16.46	8.35	3271	52382	15.07	14.24	1.71	<.01	4.14	<.005
Letter Names	3187	58493	18.01	6.30	3798	68580	17.50	9.75	1.55	<.01	1.80	<.05
Total Alphabet Skills	6100	214452	34.46	24.01	7069	239021	32.58	40.47	1.69	<.01	3.31	<.005
Letter Sounds	3152	58788	17.81	15.10	3255	52861	15.00	18.69	1.24	N.S.	6.71	<.005
Visual Discrimination	2586	39414	14.61	9.27	2858	40468	13.29	11.52	1.25	N.S.	4.01	<.005
Sound Matching	4353	110957	24.59	22.17	4985	120633	22.97	28.31	1.28	<.05	3.20	<.005
Total Visual/Auditory Discrimination	6939	279671	39.20	43.40	7813	295596	36.34	54.56	1.26	N.S.	4.01	<.005
Prereading Total	18672	2015645	106.09	198.37	20747	2071100	96.50	322.72	1.63	<.01	5.92	<.005
Mathematics	3808	88944	21.51	39.88	3752	68583	17.29	17.17	2.32	<.01	7.64	<.005

N = Number
ΣX_2 = Sum of raw scores
ΣX^2 = Sum of raw scores squared
X_2 = Mean score
σ^2 = Variance

TABLE XXXIV

CAT SCORES OF FULL-DAY AND HALF-DAY KINDERGARTEN STUDENTS IN 1980

Area	Full-Day					Half-Day								
	N	ΣX	ΣX^2	$\bar{X}$	σ^2	N	ΣX	ΣX^2	$\bar{X}$	σ^2	F	p	t	p
Listening for Information	223	3085	44117	13.83	6.48	199	2590	35056	13.02	6.80	1.05	N.S.	3.23	<.005
Letter Forms	223	3482	57336	15.61	13.36	199	2884	45686	14.49	19.65	1.47	<.01	2.81	<.005
Letter Names	228	3878	69404	17.01	15.17	199	3377	60317	16.97	15.20	1.00	N.S.	0.11	N.S.
Total Alphabet Skills	223	7312	250292	32.79	47.46	199	6268	209940	31.50	63.20	1.33	<.05	1.77	<.05
Letter Sounds	228	3662	64900	16.06	26.80	199	2972	49352	14.93	25.08	1.07	N.S.	4.61	<.005
Visual Discrimination	225	3269	50507	14.53	13.45	198	2706	39600	13.67	13.29	1.01	N.S.	2.416	<.01
Sound Matching	229	5474	138280	23.90	32.59	199	4609	112965	23.16	31.40	1.04	N.S.	1.35	<.05
Total Visual/Auditory Discrimination	225	8691	350425	38.63	65.72	198	7289	281499	36.81	66.84	1.02	N.S.	2.30	<.05
Prereading Total	217	22216	2355210	102.38	374.00	198	18948	1906290	95.70	472.20	1.26	<.05	3.30	<.005
Mathematics	223	4469	93991	20.04	19.96	199	3392	61406	17.05	18.12	1.10	N.S.	7.02	<.005

N = Number
ΣX_2 = Sum of raw scores
ΣX^2 = Sum of raw scores squared
$\bar{X}_2$ = Mean score
σ^2 = Variance

TABLE XXXV

1982 HANDWRITING EVALUATION SCALE - CURSIVE

SCORES FOR 1978-1979 AND 1979-1980

KINDERGARTEN STUDENTS

Group	N	Rating					Mean	S.D.	t	p
		1	2	3	4	5				
1978-1979										
Full-Day	74	2	10	26	29	7	3.39	.93	1.08	N.S.
Half-Day	89	2	15	39	26	7	3.24	.90		
1979-1980										
Full-Day	98	2	9	37	41	9	3.47	.86	2.08	< .05
Half-Day	77	1	17	28	28	3	3.19	.87		

TABLE XXXVI

1980 GATES-MacGINITIE SCORES FOR 1978-1979 FULL-DAY KINDERGARTEN STUDENTS

School	Area	N	ΣX	ΣX^2	$\bar{X}$	σ^2
1	Vocabulary	27	996	37770	36.89	39.56
	Comprehension		802	24856	29.70	39.75
	Total		1798	123508	66.59	145.17
2	Vocabulary	29	1195	50499	41.21	44.38
	Comprehension		703	18313	24.24	45.40
	Total		1898	128912	65.45	167.54
3	Vocabulary	13	321	9377	24.69	120.90
	Comprehension		296	7806	22.77	88.96
	Total		617	34135	47.46	404.27
4	Vocabulary	27	1159	50723	42.93	37.38
	Comprehension		690	18970	25.56	51.41
	Total		1849	130805	68.48	160.87
Exper. Total	Vocabulary	96	3671	148369	38.24	84.12
	Comprehension		2491	69945	25.95	55.88
	Total		6162	417360	64.19	229.86

N = Number
ΣX = Sum of raw scores
ΣX^2 = Sum of raw scores squares
$\bar{X}$ = Mean score
σ^2 = Variance

TABLE XXXVII

1980 GATES-MacGINITIE SCORES FOR 1978-1979 HALF-DAY KINDERGARTEN STUDENTS

School	Area	N	ΣX	ΣX^2	$\bar{X}$	σ^2
1	Vocabulary	27	1129	48083	41.81	33.62
	Comprehension		711	14769	26.33	40.23
	Total		1840	128940	68.15	136.44
2	Vocabulary	42	807	18717	19.21	78.32
	Comprehension		731	15651	17.40	71.42
	Total		1538	67442	36.62	271.27
3	Vocabulary	26	601	16051	23.12	86.35
	Comprehension		540	12998	20.77	71.30
	Total		1141	57507	43.88	297.39
4	Vocabulary	53	1484	46166	28.00	88.73
	Comprehension		1457	45437	27.49	103.52
	Total		2941	180221	55.49	327.37
Control Total	Vocabulary	148	4021	129017	27.17	134.50
	Comprehension		3439	93855	23.24	94.86
	Total		7460	434110	50.41	395.14

N = Number
ΣX = Sum of raw scores
ΣX^2 = Sum of raw scores squares
$\bar{X}$ = Mean score
σ^2 = Variance

The statistical t-test was performed to determine if there was a significant difference between the full-day and half-day scores. Results from the test are summarized in Table XXXVIII which shows the mean scores for both groups and the results of the t-test.

TABLE XXXVIII

1980 GATES-MacGINITIE RESULTS FOR 1978-1979 FULL-DAY AND HALF-DAY KINDERGARTEN STUDENTS

Area	Full-Day Kindergarten N=96	Half-Day Kindergarten N=148		
	Mean	Mean	t	p
Vocabulary	38.24	27.17	8.29	< .005
Comprehension	25.95	23.24	2.45	< .01
Total	64.19	50.41	6.12 .	< .005

Follow-up results show that the kindergarten students who attended full-day in 1978-1979 scored significantly higher than the kindergarten students who attended half-day with the statistical t-test showing $t = 6.12$ and $p < .005$.

The total mean score for full-day was 64.19 compared to a total mean score of 50.41 for half-day students. Therefore, the achievement level of full-day students was 13.78 points higher than half-day students at the end of their first grade year. In comparing the mean scores for vocabulary (38.24, 27.17) and for comprehension (25.95, 23.24), the full-day children were 11.07 points higher in vocabulary and 2.71 points higher in comprehension.

These results indicate that full-day kindergarten students continued to achieve at a higher level during first grade than half-day kindergarten students.

The Gates-MacGinitie Reading Tests were administered to children in the spring of 1982 when the 1978-1979 groups were in the third grade and the 1979-1980 groups were in the second grade. The statistical t-test was performed to determine whether there was a significant difference between the means of the full-day and half-day kindergarten group scores. The data from the tests are summarized in Table XXXIX which shows the mean scores for both groups in vocabulary and comprehension and the results of the t-tests.

TABLE XXXIX

1982 GATES-MacGINITIE

SCORES FOR 1978-1979 AND 1979-1980

KINDERGARTEN STUDENTS

Area	Group	N	Mean	S.D.	t	p
1978-1979						
Vocabulary	Full-Day	74	40.34	6.03	2.35	< .05
	Half-Day	90	37.67	8.02		
Comprehension	Full-Day	74	35.47	8.20	2.14	< .05
	Half-Day	90	32.60	8.71		
1979-1980						
Vocabulary	Full-Day	109	36.98	6.99	1.79	< .05
	Half-Day	100	34.93	9.43		
Comprehension	Full-Day	109	25.30	6.18	1.84	< .05
	Half-Day	100	23.48	8.05		

The results of the Gates-MacGinitie Reading Tests show that the children who attended full-day kindergarten in 1978-1979 and 1979-1980 had higher mean scores in vocabulary and comprehension. For both the 1978-1979 and 1979-1980 groups, the results of the t-test show that the vocabulary and comprehension scores were significantly higher for the children who had attended full-day kindergarten.

Comprehensive Tests of Basic Skills

In the spring of 1982, the Comprehensive Tests of Basic Skills were administered to children in the 1978-1979 experimental and control groups. The statistical t-test was performed to determine whether there was a significant difference between the means of the full-day and half-day kindergarten group scores. The data from the tests are summarized in Table XL which shows the mean scores for both groups in 14 areas and the results of the t-tests.

The results of the Comprehensive Tests of Basic Skills show that in all 14 areas of the test the children who attended full-day kindergarten in 1978-1979 had higher mean scores than the children who attended half-day kindergarten. The statistical t-test shows that the mean scores of children in full-day kindergarten were significantly higher in the following areas: word attack, vocabulary, comprehension, total reading, language mechanics, total language, computation, mathematics conclusions and applications, total mathematics, and total battery.

The Comprehensive Tests of Basic Skills were given to fifth grade students in March of 1984 and to seventh grade students in March of 1986. The scores used for these comparisons, as shown in Table XLI and Table XLII, were normal curve equivalents (NCEs).

The results of the fifth grade Comprehensive Tests of Basic Skills show that in all 14 areas of the test the students who attended full-day kindergarten in 1978-1979 had higher mean scores than the students who attended half-day kindergarten. The statistical t-test shows that the mean scores of students in the full-day kindergarten program were significantly higher in the following areas: vocabulary, comprehension, total reading, spelling, language mechanics, total language, computation, total mathematics, reference skills, and total battery.

The seventh grade mean scores of the students who attended full-day kindergarten were higher in every test than for those who attended for a half day. The statistical t-test shows that the mean scores of students who attended full-day kindergarten were significantly higher in the following areas: comprehension, spelling, expression, total language, science, social studies, and total battery.

Table XLIII provides a summary of the levels of significance in the subtests of the Comprehensive Tests of Basic Skills administered in grades three, five, and seven to the 1978-1979 kindergarten students. Students who had attended full- or half-day kindergarten were compared a total of 42 times. The mean scores of students who attended full-day kindergarten were higher in every test in all three grades and significantly so in 27 of the 42 comparisons. The total battery was significantly higher in favor of the full-day kindergarten students all three years.

TABLE XL

THIRD GRADE

SCORES ON COMPREHENSIVE TESTS OF BASIC SKILLS

FOR 1978-1979 KINDERGARTEN STUDENTS

Area	Group	N	Mean	S.D.	t	p
Word Attack	Full-Day	74	648.61	45.25	3.04	< .01
	Half-Day	91	622.96	59.49		
Vocabulary	Full-Day	74	636.03	42.03	2.17	< .05
	Half-Day	91	618.65	57.06		
Comprehension	Full-Day	74	645.27	51.61	2.89	< .01
	Half-Day	91	618.97	62.45		
Total Reading	Full-Day	74	640.89	44.32	2.70	< .01
	Half-Day	91	619.00	56.50		
Total Spelling	Full-Day	74	615.61	46.04	1.53	N.S.
	Half-Day	91	603.99	48.17		
Mechanics	Full-Day	74	649.80	32.89	2.57	< .01
	Half-Day	91	633.93	43.65		
Expression	Full-Day	74	658.19	69.75	1.61	N.S.
	Half-Day	91	639.25	78.52		
Total Language	Full-Day	74	654.23	40.68	2.29	< .05
	Half-Day	91	636.82	53.68		
Computation	Full-Day	74	672.76	34.25	2.57	< .01
	Half-Day	91	657.10	41.89		
Conclusions, Applications	Full-Day	74	647.70	39.65	2.80	< .01
	Half-Day	91	629.47	42.77		
Total Mathematics	Full-Day	74	660.43	32.99	2.94	< .01
	Half-Day	91	643.52	39.24		
Total Battery	Full-Day	74	651.84	32.02	2.99	< .01
	Half-Day	91	633.07	45.22		
Science	Full-Day	74	609.81	39.15	0.76	N.S.
	Half-Day	91	604.09	55.14		
Social Studies	Full-Day	74	645.77	37.82	0.68	N.S.
	Half-Day	91	640.89	51.27		

TABLE XLI

FIFTH GRADE

SCORES ON COMPREHENSIVE TESTS OF BASIC SKILLS FOR 1978-1979 KINDERGARTEN STUDENTS

Area	Full-Day N	Full-Day Mean	Full-Day S.D.	Half-Day N	Half-Day Mean	Half-Day S.D.	t	p
Vocabulary	105	57.13	16.88	103	51.50	18.87	2.27	< .05
Comprehension	105	54.63	16.99	103	50.43	16.44	1.81	< .05
Total Reading	105	55.42	16.50	103	50.65	17.34	2.03	< .05
Spelling	105	52.75	16.70	103	47.31	16.29	2.38	< .01
Mechanics	105	59.02	19.37	103	53.85	19.78	1.90	< .05
Expression	105	53.34	16.16	103	49.69	17.51	1.56	N.S.
Total Language	105	56.73	17.82	103	52.19	18.83	1.79	< .05
Computation	105	63.41	21.16	103	55.34	17.97	2.96	< .01
Concepts and Applications	105	53.70	17.09	103	51.53	14.43	0.99	N.S.
Total Mathematics	105	58.40	19.02	103	53.96	15.67	1.83	< .05
TOTAL BATTERY	105	55.84	16.80	103	50.88	16.16	2.17	< .05
Reference Skills	105	54.40	20.34	102	49.75	19.86	1.66	< .05
Science	105	55.42	19.17	103	53.29	19.03	0.80	N.S.
Social Studies	105	54.91	16.95	103	54.03	15.65	0.39	N.S.

TABLE XLII

SEVENTH GRADE

SCORES ON COMPREHENSIVE TESTS OF BASIC SKILLS FOR 1978-1979 KINDERGARTEN STUDENTS

Area	Full-Day N	Full-Day Mean	Full-Day S.D.	Half-Day N	Half-Day Mean	Half-Day S.D.	t	p
Vocabulary	92	55.82	13.56	107	53.89	16.95	0.89	N.S.
Comprehension	92	58.52	16.02	107	54.46	16.28	1.77	< .05
Total Reading	92	57.13	14.29	107	54.31	16.23	1.29	N.S.
Spelling	93	58.60	15.67	107	51.42	16.52	3.14	< .01
Mechanics	93	62.02	16.68	107	58.55	18.15	1.40	N.S.
Expression	93	61.99	16.57	107	56.97	17.21	2.09	< .05
Total Language	93	62.06	16.31	107	57.76	17.80	1.77	< .05
Computation	93	61.83	16.13	107	60.68	16.50	0.50	N.S.
Concepts and Applications	93	60.23	17.32	107	57.75	15.65	1.06	N.S.
Total Mathematics	93	60.06	16.57	107	58.02	15.48	0.90	N.S.
TOTAL BATTERY	92	60.37	15.27	107	56.56	16.62	1.67	< .05
Reference Skills	93	58.29	15.43	107	54.57	17.10	1.61	N.S.
Science	93	60.03	16.43	107	55.98	16.80	1.72	< .05
Social Studies	91	59.42	16.44	107	54.68	17.03	1.98	< .05

TABLE XLIII

SUMMARY OF LEVELS OF SIGNIFICANCE
ON SUBTESTS OF COMPREHENSIVE TESTS OF BASIC SKILLS
IN GRADES THREE, FIVE, AND SEVEN
FOR 1978-1979 KINDERGARTEN STUDENTS

Area	Grade 3 p	Grade 5 p	Grade 7 p
Word Attack	< .01	Not Tested	Not Tested
Vocabulary	< .05	< .05	N.S.
Comprehension	< .01	< .05	< .05
Total Reading	< .01	< .05	N.S.
Spelling	N.S.	< .01	< .01
Mechanics	< .01	< .05	N.S.
Expression	N.S.	N.S.	< .05
Total Language	< .05	< .05	< .05
Computation	< .01	< .01	N.S.
Conclusions, Concepts, Applications	< .01	N.S.	N.S.
Total Mathematics	< .01	< .05	N.S.
Total Battery	< .01	< .05	< .05
Reference Skills	Not Tested	< .05	N.S.
Science	N.S.	N.S.	< .05
Social Studies	N.S.	N.S.	< .05

Extracurricular Activities

Middle school students in the Evansville-Vanderburgh School Corporation have the opportunity to participate in many extracurricular activities, most of which occur after school. Bus transportation is provided for these programs.

Academic Academy

The Academic Academy is an after-school program that provides opportunities for students to participate in choir, drama, forensics, and special activities involving computers, mathematics, and science. Table XLIV shows the participation of students who attended kindergarten in the four full-day kindergarten schools and matching half-day kindergarten schools in the middle school Academic Academy.

The results show that the sixth grade students who attended full-day kindergarten had a higher percentage of participation in choir, drama, mathematics, and science; and the students who attended half-day kindergarten had a higher percentage of participation in computers and forensics. In grade seven, the full-day students had a higher rate of participation in computers and science; and the half-day students had a higher rate of participation in choir, drama, forensics, and mathematics. In the eighth grade, the full-day kindergarten students had a higher rate of participation in choir, drama, and science; and the half-day kindergarten students had a higher rate of participation in computers, forensics, and mathematics.

The chi-square test of independence revealed that the number of students participating was significantly associated only in the sixth grade choir. Although the total participation favored the full-day kindergarten students in grades six and eight and the half-day kindergarten students in grade seven, the chi-square test of independence was not used with the totals because individual students might have been involved in more than one academy. Students who attended full-day kindergarten had a total Academic Academy participation of 37.1 percent in grade six, 25.5 percent in grade seven, and 35.5 percent in grade eight compared to the half-day kindergarten students who had 19.4 percent of participation in grade six, 36.4 percent in grade seven, and 33.7 percent in grade eight.

In comparing Academic Academy participation percentages in grades six, seven, and eight, the full-day kindergarten students had a higher rate of participation nine times compared to nine times for the half-day students.

Athletics

Table XLV shows the participation of sixth grade students who attended full- or half-day kindergarten in 1978-1979 in the after-school athletic program. The results show that the students who attended full-day kindergarten had a higher percentage of participation in flag football, volleyball, boys' basketball 6-7, girls' basketball 6-7, boys' reserve track, and girls' reserve track; and the students who attended half-day kindergarten had a higher percentage of participation in boys' varsity track.

TABLE XLIV

SIXTH, SEVENTH, AND EIGHTH GRADE
PARTICIPATION IN THE ACADEMIC ACADEMY
BY 1978-1979 KINDERGARTEN STUDENTS

Area	Full-Day Participating? Yes/No	Half-Day Participating? Yes/No	Chi-Square	p
Grade 6				
Choir	11/94	2/101	5.089	<.05
Computers	4/101	6/97	0.126	N.S.
Drama	6/99	1/102	2.287	N.S.
Forensics	3/102	3/100	0.152	N.S.
Mathematics	6/99	3/100	0.425	N.S.
Science	9/96	5/98	0.629	N.S.
Total	39/66	20/83		
Grade 7				
Choir	12/82	17/90	0.183	N.S.
Computers	3/91	3/104	0.065	N.S.
Drama	3/91	7/100	0.585	N.S.
Forensics	1/93	6/101	1.870	N.S.
Mathematics	1/93	2/105	0.013	N.S.
Science	4/90	4/103	0.030	N.S.
Total	24/70	39/68		
Grade 8				
Choir	13/80	7/94	1.895	N.S.
Computers	4/89	6/95	0.036	N.S.
Drama	4/89	3/98	0.012	N.S.
Forensics	7/86	11/90	0.313	N.S.
Mathematics	1/92	4/97	0.662	N.S.
Science	4/89	3/98	0.012	N.S.
Total	33/60	34/67		

TABLE XLV

SIXTH GRADE PARTICIPATION IN ATHLETICS BY

1978-1979 KINDERGARTEN STUDENTS

Area	Full-Day Participating? Yes/No	Half-Day Participating? Yes/No	Chi-Square	p
Cub Football	0 / 105	0 / 103	n.a.	
Flag Football	14 / 91	5 / 98	3.540	N.S.
Volleyball	2 / 103	0 / 103	0.486	N.S.
Boys' Basketball 6-7	11 / 94	0 / 103	9.397	< .01
Boys' Basketball 8	0 / 105	0 / 103	n.a.	
Girls' Basketball 6-7	4 / 101	2 / 101	0.152	N.S.
Girls' Basketball 8	0 / 105	0 / 103	n.a.	
Boys' Varsity Track	0 / 105	1 / 102	0.001	N.S.
Boys' Reserve Track	7 / 98	4 / 99	0.344	N.S.
Girls' Varsity Track	0 / 105	0 / 103	n.a.	
Girls' Reserve Track	10 / 95	8 / 95	0.042	N.S.
Total	48 / 57	20 / 83		

The chi-square test of independence revealed that the number of students participating was significantly associated in boys' basketball 6-7. Students who attended full-day kindergarten had a total athletic participation of 45.7 percent compared to 19.4 percent for the students who attended half-day kindergarten.

Table XLVI lists the participation of seventh grade students who attended the full- and half-day kindergartens in 1978-1979 in the after-school athletic program. The results show that the students who attended full-day kindergarten had a higher percentage of participation in cub football, flag football, boys' basketball 8, girls' basketball 6-7, girls' basketball 8, boys' reserve track, and girls' reserve track; and the students who attended half-day kindergarten had a higher percentage of participation in volleyball, boys' basketball 6-7, boys' varsity track, and girls' varsity track.

The chi-square test of independence revealed that the number of students participating was significantly associated in girls' basketball 6-7. Students who attended full-day kindergarten had a total athletic participation of 53.2 percent compared to 32.7 percent for the students who attended the half-day program.

Table XLVII contains the participation data for eighth grade students who attended the 1978-1979 full- and half-day kindergartens in the after-school athletic program. The results show that the students who attended full-day kindergarten had a higher percentage of participation in cub football, flag football, boys' basketball 8, girls' basketball 6-7, girls' basketball 8, boys' varsity track, boys' reserve track, girls' varsity track, and girls' reserve track; and the students who attended half-day kindergarten had a higher percentage of participation in volleyball and boys' basketball 6-7.

The chi-square test of independence revealed that the number of students participating was not significantly associated in any eighth grade athletic program. Students who attended full-day kindergarten had a total athletic participation of 67.7 percent compared to 45.5 percent for the students who attended the half-day program.

In comparing athletic participation percentages in grades six, seven, and eight, the full-day kindergarten students had a higher rate of participation 22 times compared to seven times for the half-day students.

Other Activities

Table XLVIII shows the participation of sixth, seventh, and eighth grade students who attended the full- and half-day programs in 1978-1979 in other activities which include band, cheerleading, choir, library aide, orchestra, pompon squad, safety patrol, and student council. Students may have participated in more than one of these activities.

The results show that the sixth grade students who attended full-day kindergarten had a higher percentage of participation in cheerleading, choir, orchestra, pompon squad, and the student council; and the students who attended half-day kindergarten had a higher percentage of participation

TABLE XLVI
SEVENTH GRADE
PARTICIPATION IN ATHLETICS BY
1978-1979 KINDERGARTEN STUDENTS

Area	Full-Day Participating? Yes / No	Half-Day Participating? Yes / No	Chi-Square	p
Cub Football	2 / 92	2 / 105	0.141	N.S.
Flag Football	8 / 86	5 / 102	0.666	N.S.
Volleyball	5 / 89	8 / 99	0.111	N.S.
Boys' Basketball 6-7	3 / 91	5 / 102	0.030	N.S.
Boys' Basketball 8	3 / 91	2 / 105	0.022	N.S.
Girls' Basketball 6-7	14 / 80	4 / 103	6.330	< .05
Girls' Basketball 8	2 / 92	1 / 106	0.013	N.S.
Boys' Varsity Track	0 / 94	2 / 105	0.384	N.S.
Boys' Reserve Track	4 / 90	2 / 105	0.332	N.S.
Girls' Varsity Track	1 / 93	2 / 105	0.013	N.S.
Girls' Reserve Track	8 / 86	2 / 105	3.370	N.S.
Total Athletics	50 / 44	35 / 72		

TABLE XLVII

EIGHTH GRADE

PARTICIPATION IN ATHLETICS BY

1978-1979 KINDERGARTEN STUDENTS

	Full-Day Participating? Yes/No	Half-Day Participating? Yes/No	Chi-Square	p
Cub Football	12/81	7/94	1.337	N.S.
Flag Football	3/90	1/100	0.347	N.S.
Volleyball	10/83	11/90	0.040	N.S.
Boys' Basketball 6-7	0/93	2/99	0.426	N.S.
Boys' Basketball 8	5/88	5/96	0.036	N.S.
Girls' Basketball 6-7	3/90	1/100	0.347	N.S.
Girls' Basketball 8	12/81	5/96	2.900	N.S.
Boys' Varsity Track	9/84	7/94	0.188	N.S.
Boys' Reserve Track	2/91	1/100	0.005	N.S.
Girls' Varsity Track	5/88	5/96	0.036	N.S.
Girls' Reserve Track	2/91	1/100	0.005	N.S.
Total	63/30	46/55		

TABLE XLVIII
SIXTH, SEVENTH, AND EIGHTH GRADE PARTICIPATION IN OTHER ACTIVITIES BY 1978-1979 KINDERGARTEN STUDENTS

Area	Full-Day Participating? Yes/No	Half-Day Participating? Yes/No	Chi-Square	p
Grade 6				
Band	31/74	33/70	0.059	N.S.
Cheerleading	2/103	0/103	0.486	N.S.
Choir	28/77	26/77	0.030	N.S.
Orchestra	13/92	4/99	3.934	< .05
Pompon Squad	7/98	0/103	5.204	< .05
Student Council	11/94	5/98	1.590	N.S.
Total	92/13	68/35		
Grade 7				
Band	22/72	27/80	0.019	N.S.
Cheerleading	3/91	3/104	0.065	N.S.
Choir	10/84	13/94	0.013	N.S.
Library Aide	1/93	0/107	0.004	N.S.
Orchestra	10/84	4/103	2.689	N.S.
Pompon Squad	3/91	3/104	0.065	N.S.
Safety Patrol	1/93	0/107	0.004	N.S.
Student Council	8/86	5/102	0.666	N.S.
Total	58/36	55/52		
Grade 8				
Band	23/70	26/75	0.000	N.S.
Cheerleading	4/89	5/96	0.016	N.S.
Choir	13/80	11/90	0.189	N.S.
Library Aide	3/90	3/98	0.098	N.S.
Orchestra	9/84	2/99	4.021	< .05
Pompon Squad	9/84	8/93	0.032	N.S.
Safety Patrol	1/92	0/101	0.002	N.S.
Student Council	6/87	11/90	0.703	N.S.
Total	68/25	66/35		

in band. In grade seven, the full-day students had a higher percentage of participation in cheerleading, library aide, orchestra, pompon squad, safety patrol, and student council; and the students who attended kindergarten for a half day had a higher percentage of participation in band and choir. In the eighth grade, the full-day kindergarten group had a higher percentage of participation in choir, library aide, orchestra, pompon squad, and safety patrol; and the students who attended half-day kindergarten had a higher percentage of participation in band, cheerleading, and student council.

The chi-square test of independence revealed that the number of students participating was significantly associated in sixth grade orchestra, sixth grade pompon squad, and eighth grade orchestra. Students who attended full-day kindergarten had a total other activities participation of 87.6 percent in grade six, 61.7 percent in grade seven, and 73.1 percent in grade eight compared to the half-day kindergarten students who had 66.0 percent participation in grade six, 51.4 percent in grade seven, and 65.3 percent in grade eight.

In comparing other activities participation percentages in grades six, seven, and eight, the full-day kindergarten students had a higher rate of participation 16 times compared to six times for the half-day students.

There were 73 extracurricular activities in the middle school in which the former full- and half-day students had an opportunity to participate. The percent of participation was higher 47 times for the full-day kindergarten students and 22 times for the half-day students.

Report Card Academic Marks

Compiled for this report were academic marks on report cards for the first, second, third, sixth, seventh, and eighth grades for the 1978-1979 experimental and control groups and the first and second grade report cards for the 1979-1980 experimental and control groups.

Grades One, Two, and Three

Children in Evansville receive report cards four times each year in the primary grades. The marks that they receive in subject achievement are S (Satisfactory Progress), I (Improvement Shown), and N (Needs Improvement). The order of these marks from high to low is S, I, N. At the end of each school year, report card grades are recorded on a composite report along with an average of these marks, and these average marks were used to compare the groups in this study.

The chi-square test of independence was used to evaluate whether grades and group membership were independent factors. The results of the test are summarized in Tables XLIX, L, LI, LII, and LIII.

Table XLIX shows the first grade report card results for the 1978-1979 experimental and control groups.

TABLE XLIX
FIRST GRADE ACADEMIC MARKS
FOR 1978-1979 KINDERGARTEN STUDENTS

Subject	Group	N	Satisfactory		Improvement Shown		Needs Improvement		Chi-Square	p
			f	%	f	%	f	%		
Mathematics	Full-Day	79	72	91	4	5	3	4	8.03	< .05
	Half-Day	103	78	76	9	9	16	16		
Reading	Full-Day	79	63	80	7	9	9	11	10.48	< .01
	Half-Day	103	61	59	10	10	32	31		
Hand-writing	Full-Day	79	54	68	12	15	13	16	0.43	N.S.
	Half-Day	103	66	64	19	18	18	17		

The full-day group received a higher percentage of S marks in mathematics, reading, and handwriting. The two less-than-satisfactory marks, I and N, were given in a larger percentage in all subject areas to the half-day group.

The chi-square test of independence revealed that the grade assigned and membership in the experimental and control groups were not independent in mathematics and reading. Even though the handwriting marks were higher in the experimental group, they were not significantly related to group membership.

Table L contains the academic grades on report cards for the 1978-1979 experimental and control groups in second grade.

The results show that the two groups continued the pattern as in Table XLIX. The full-day kindergarten children received a higher percentage of S marks in mathematics, reading, handwriting, and spelling, the last of which was added to the report card marks in second grade. The half-day kindergarten children received a higher percentage of less-than-satisfactory marks, I and N, in all four subject areas.

The chi-square test of independence revealed that the grade assigned and membership in the experimental and control groups were not independent in mathematics, reading, and spelling. The handwriting marks were higher for the experimental group, but they were not significantly related to group membership.

Table LI contains the academic grades on report cards for the 1978-1979 experimental and control groups in third grade.

TABLE L
SECOND GRADE ACADEMIC MARKS
FOR 1978-1979 KINDERGARTEN STUDENTS

Subject	Group	N	Satisfactory		Improvement Shown		Needs Improvement		Chi-Square	p
			f	%	f	%	f	%		
Mathematics	Full-Day	76	69	91	3	4	4	5	26.84	< .01
	Half-Day	97	53	55	16	16	28	29		
Reading	Full-Day	76	67	88	4	5	5	7	16.76	< .01
	Half-Day	97	60	62	7	7	30	31		
Hand-writing	Full-Day	76	56	74	5	7	15	20	3.80	N.S.
	Half-Day	97	58	60	8	8	31	32		
Spelling	Full-Day	76	70	92	2	3	4	5	16.67	< .01
	Half-Day	97	64	66	12	12	21	22		

The table shows that children in the experimental group had a higher percentage of S marks in six subject areas--mathematics, reading, handwriting, spelling, English, and music. The control group had a higher percentage of S marks in social studies, science, and art.

The children who attended half-day kindergarten received a larger percentage of less-than-satisfactory marks, I and N, in 12 cases, and the full-day group received a larger percentage of less-than-satisfactory marks in five cases. Neither group had a student who received an I mark in art.

The chi-square test of independence revealed that the grade assigned and membership in the experimental and control groups were not independent in mathematics and English. The other seven subject grades were not significantly related to group membership.

Table LII lists the academic grades on report cards for the 1979-1980 experimental and control groups in first grade.

The full-day kindergarten children received a higher percentage of satisfactory marks than the half-day kindergarten children in mathematics, reading, and handwriting. They also received a lower percentage of less-than-satisfactory marks, I and N, in all subjects except I in reading. Even though the children in the full-day kindergarten received higher grades in mathematics, reading, and handwriting, these grades were not significantly associated with group membership.

Table LIII shows the academic grades on report cards for the 1979-1980 experimental and control groups in second grade.

TABLE LI

THIRD GRADE ACADEMIC MARKS

FOR 1978-1979 KINDERGARTEN STUDENTS

Subject	Group	N	Satisfactory		Improvement Shown		Needs Improvement		Chi-Square	p
			f	%	f	%	f	%		
Mathematics	Full-Day	74	61	82	7	9	6	8	8.96	< .05
	Half-Day	92	57	62	14	15	21	23		
Reading	Full-Day	74	62	84	3	4	9	12	1.36	N.S.
	Half-Day	92	71	77	7	8	14	15		
Hand-writing	Full-Day	74	57	77	9	12	8	11	4.39	N.S.
	Half-Day	92	59	64	12	13	21	23		
Spelling	Full-Day	74	66	89	2	3	6	8	2.40	N.S.
	Half-Day	92	74	80	4	4	14	15		
English	Full-Day	74	66	89	1	1	7	9	11.51	< .01
	Half-Day	92	62	67	8	9	22	24		
Social Studies	Full-Day	74	68	92	2	3	4	5	5.24	N.S.
	Half-Day	92	91	99	0	0	1	1		
Science	Full-Day	74	67	91	3	4	4	5	0.56	N.S.
	Half-Day	92	86	93	3	3	3	3		
Art	Full-Day	74	73	99	0	0	1	1	1.25	N.S.
	Half-Day	92	92	100	0	0	0	0		
Music	Full-Day	74	74	100	0	0	0	0	2.46	N.S.
	Half-Day	92	89	97	2	2	1	1		

TABLE LII
FIRST GRADE ACADEMIC MARKS
FOR 1979-1980 KINDERGARTEN STUDENTS

Subject	Group	N	Satisfactory		Improvement Shown		Needs Improvement		Chi-Square	p
			f	%	f	%	f	%		
Mathematics	Full-Day	114	94	82	13	11	7	6	3.55	N.S.
	Half-Day	112	81	72	18	16	13	12		
Reading	Full-Day	114	77	68	20	18	17	15	0.18	N.S.
	Half-Day	112	74	66	19	17	19	17		
Hand-writing	Full-Day	114	72	63	25	22	17	15	5.18	N.S.
	Half-Day	112	54	48	33	29	25	22		

TABLE LIII
SECOND GRADE ACADEMIC MARKS
FOR 1979-1980 KINDERGARTEN STUDENTS

Subject	Group	N	Satisfactory		Improvement Shown		Needs Improvement		Chi-Square	p
			f	%	f	%	f	%		
Mathematics	Full-Day	110	94	85	12	11	4	4	20.22	< .01
	Half-Day	102	65	64	12	12	25	25		
Reading	Full-Day	110	91	83	12	11	7	6	14.79	< .01
	Half-Day	102	68	67	8	8	26	25		
Hand-writing	Full-Day	110	76	69	22	20	12	11	6.40	< .05
	Half-Day	102	54	53	27	26	21	21		
Spelling	Full-Day	110	101	92	8	7	1	1	14.66	< .01
	Half-Day	102	79	77	8	8	15	15		

The full-day kindergarten children received a higher percentage of satisfactory marks in all four subject areas--mathematics, reading, handwriting, and spelling. They also received a lower percentage of less-than-satisfactory marks, I and N, in all subject areas except I in reading.

The chi-square test of independence revealed that there was a significant association between the grade assigned and membership in the experimental and control group in every subject area--mathematics, reading, handwriting, and spelling.

The 1978-1979 and 1979-1980 experimental and control groups were compared in academic grades 23 times in Tables XLIX through LIII. The experimental groups consistently had higher percentages of satisfactory marks and lower percentages of less-than-satisfactory marks. The chi-square test of independence revealed that the association between grade assigned and membership in the experimental and control group was significant in 11 of the 23 times that they were compared. Those subject areas in which the probability was less than .05 that the observed association could be attributed to chance were mathematics, four times; reading, three times; spelling, two times; and English and handwriting, one time each.

Grades Six, Seven, and Eight

Students in grades six, seven, and eight receive student progress reports four times each year. Student academic report marks are A, B, C, D, and F. Grade point averages are computed with A = 4.0, B = 3.0, C = 2.0, D = 1.0, and F = 0.0.

Table LIV shows the mean of the grade point average in the sixth, seventh, and eighth grades for the students who attended full- and half-day kindergarten in 1978-1979. The statistical t-test was performed to determine whether or not there was a significant difference between the full-day and half-day mean scores.

TABLE LIV
GRADE POINT AVERAGE IN SIXTH, SEVENTH, AND EIGHTH GRADES FOR 1978-1979 KINDERGARTEN STUDENTS

Grade	Full-Day N	Full-Day Mean	Full-Day S.D.	Half-Day N	Half-Day Mean	Half-Day S.D.	t	p
6	99	2.68	0.79	96	2.49	0.65	1.69	< .05
7	93	2.84	0.65	107	2.57	0.72	2.70	< .01
8	94	2.80	0.66	101	2.57	0.66	2.46	< .01

The mean grade point average for students in grade six who attended full-day kindergarten was 2.68, and the mean grade point average for students who attended half-day kindergarten was 2.49. The difference was significant with the statistical t-test showing t = 1.69. In grade seven, the mean grade point average for the full-day students was 2.84, and the mean for the half-day students was 2.57. The difference was significant with the statistical t-test showing t = 2.70. The eighth grade students who attended full-day kindergarten had a mean grade point average of 2.80, and the students who attended kindergarten for a half day had a mean grade point average of 2.57. The difference was significant with the statistical t-test showing t = 2.46.

Scholarship ratings are uniform in all ten middle schools. Students with a 4.0 average achieve the Distinguished Scholarship rating, students with 3.50 to 3.99 achieve the Scholarship A rating, and students with 3.00 to 3.49 achieve the Scholarship B rating. Table LV lists the scholarship ratings achieved by the students in grades six, seven, and eight.

The full-day kindergarten students had a higher percentage of scholarship ratings in every category for all three years. The chi-square test of independence revealed that the number of students attaining scholarship ratings was significantly associated in the sixth grade Distinguished Scholarship rating and total scholarship ratings and in the eighth grade Scholarship A rating. Students who attended full-day kindergarten had a scholarship ratings total of 60.0 percent in grade six, 46.2 percent in grade seven, and 45.2 percent in grade eight compared to the half-day kindergarten children who had a scholarship ratings total of 35.9 percent in grade six, 35.5 percent in grade seven, and 32.7 percent in grade eight.

Enrollment

Two questions were raised concerning enrollment. First, would parents choose to enroll their children in full-day kindergarten when given the option of either full- or half-day kindergarten? Second, would a larger percentage of children attend public school kindergarten as a result of full-day kindergarten being made available?

Table LVI shows the full- and half-day kindergarten enrollment on three dates in 1983, 1986, and 1988.

In 1983, 700 out of 706 students, or 99.15 percent, attended full-day kindergarten. In 1986, 1435 out of 1439, or 99.72 percent, attended for a full day. In 1988, the pattern continued as 1931 out of 1933 students, or 99.89 percent, attended full-day kindergarten.

Table LVII shows the resident births in Vanderburgh County and compares them to enrollment figures in the Evansville-Vanderburgh School Corporation.

Children born in 1971-1972 were eligible to enter kindergarten in the 1977-1978 school year, the last year prior to full-day kindergarten being available. Of the 2502 children born of residents in Vanderburgh County, 1771, or 70.8 percent, enrolled in public school kindergarten. Children born in 1981-1982 were eligible to enter kindergarten in the fall of 1987.

Of the 2453 children born of residents, 1917, or 78.1 percent, attended public kindergarten. If only 70.8 percent of the 1987-1988 group of children had attended kindergarten, the total enrolled would have been 1737, or 180 less than actually enrolled.

TABLE LV

SIXTH, SEVENTH, AND EIGHTH GRADE SCHOLARSHIP RATINGS ACHIEVED BY 1978-1979 KINDERGARTEN STUDENTS

Scholarship Ratings	Full-Day Yes/No	Half-Day Yes/No	Chi-Square	p
Grade 6				
Distinguished Scholarship	6/99	0/103	4.192	<.05
Scholarship A	24/81	13/90	3.058	N.S.
Scholarship B	33/72	24/79	1.342	N.S.
Total Scholarship Ratings	63/42	37/66	11.130	<.001
Grade 7				
Distinguished Scholarship	1/92	0/107	0.005	N.S.
Scholarship A	14/79	10/97	1.042	N.S.
Scholarship B	28/65	28/79	0.213	N.S.
Total Scholarship Ratings	43/50	38/69	1.950	N.S.
Grade 8				
Distinguished Scholarship	1/92	0/101	0.002	N.S.
Scholarship A	14/79	5/96	4.509	<.05
Scholarship B	27/66	28/73	0.002	N.S.
Total Scholarship Ratings	42/51	33/68	2.679	N.S.

TABLE LVI

ENROLLMENT IN

FULL- AND HALF-DAY KINDERGARTEN

Date	Enrollment	Number in Full-Day Kindergarten	Number in Half-Day Kindergarten	Percent in Full-Day Kindergarten
3/4/83*	706	700	6	99.15
3/12/86**	1439	1435	4	99.72
2/7/88***	1933	1931	2	99.90

* 11 schools
** 14 schools
*** 20 schools

TABLE LVII

RESIDENT BIRTHS IN VANDERBURGH COUNTY

COMPARED TO ENROLLMENT IN THE

EVANSVILLE-VANDERBURGH SCHOOL CORPORATION

School Year of Birth	Number Born	Number Who Enrolled in Kindergarten	Percent of Resident Births Who Enrolled in Kindergarten
1971-1972	2502	1771	70.8
1981-1982	2453	1917	78.1

CHAPTER IV

SUMMARY, CONCLUSIONS, AND DISCUSSION

Summary

The Evansville-Vanderburgh School Corporation began full-day, every-day kindergarten in four schools in the 1978-1979 school year and continued the program in 1979-1980. The children in these four schools were compared with a control group from four other schools that had half-day kindergarten. An evaluation of the first two years of full-day kindergarten was published in 1980, and a second report was issued in 1983 which covered grades one through four. This study combines the information from the first two reports covering kindergarten through grade four along with results from grades five through eight.

Experimental and Control Groups

The experimental group was automatically determined by full-day kindergarten students who attended the four pilot schools: Glenwood, Stockwell, Tekoppel, and Thompkins. The control group was selected by using a random sampling of half-day kindergarten students from four schools that continued the half-day kindergarten sessions.

In order to have the same socioeconomic backgrounds represented in the full-day kindergarten results and in the half-day kindergarten results, the random sampling of half-day kindergarten students for the control group was selected from schools that matched the socioeconomic areas of the four full-day pilot schools. Care was also taken to obtain results from both morning and afternoon half-day kindergarten sessions. There were 187 children enrolled in full-day kindergarten in the four experimental schools in June 1979 and 223 enrolled in the same four schools in June 1980. There were 223 half-day kindergarten students enrolled in June 1979 and 203 students enrolled in June 1980 in the four control schools. In this study, only those children still enrolled in the same elementary school at the time data were collected were included. At the middle school level, grades six, seven, and eight, all children enrolled in any of the ten middle schools were included if they were members of the control or experimental groups.

The fifth grade Cognitive Skills Index scores on the Test of Cognitive Skills showed that the mean of the full-day students was 102.14 and the mean of the half-day students was 99.37. The statistical *t*-test showed that the mean scores of the two groups were not significantly different. The mean of the seventh grade full-day students was 103.09 and the mean of the half-day students was 102.47. The statistical *t*-test showed that the mean scores of the two groups were not significantly different.

Purpose of the Study

The purpose of the study was to determine whether or not the students who completed full-day, every-day kindergarten in 1979 and/or 1980 exhibited any long-term benefits. Data were collected from standardized tests, report cards, school records, questionnaires, and interviews to test the null hypothesis that there was no difference in children who attended the 1978-1979 and 1979-1980 full-day and half-day programs. Thus, the study was based on the expectation that children who attended the 1978-1979 and/or 1979-1980 full-day, every-day kindergarten would

1. Have kindergarten, first, second, and third grade teachers with positive attitudes about full-day kindergarten.

2. Have parents with positive attitudes about full-day kindergarten.

3. Have positive attitudes about full-day kindergarten.

Further, when compared with students who attended half-day kindergarten in 1978-1979 and/or 1979-1980, the children who attended the full-day kindergarten would be expected to

4. Have a higher rate of attendance.

5. Have more positive attitudes toward school, as measured by the Survey of School Attitudes.

6. Achieve higher conduct marks on report cards.

7. Have a lower rate of nonpromotion.

8. Display a higher self-concept, as measured by the Piers-Harris Children's Self-Concept Scale.

9. Achieve higher scores on the Boehm Test of Basic Concepts (compared to a norm group).

10. Achieve higher readiness scores, as measured by the California Achievement Tests.

11. Achieve higher handwriting ratings, as measured by the Evaluation Scale--Cursive.

12. Achieve higher reading scores, as measured by the Gates-MacGinitie Reading Tests.

13. Achieve higher academic scores, as measured by the Comprehensive Tests of Basic Skills.

14. Have a higher rate of participation in extracurricular activities.

15. Achieve higher academic marks on report cards.

Finally, parents who have the choice of half- or full-day public school kindergarten, nonpublic school kindergarten, or no kindergarten, inasmuch as kindergarten attendance is not required in Indiana, would

16. Choose to enroll children in the full-day program.

17. Have a higher percentage of their children attend public school kindergarten.

Results

Two opinionnaires were created to obtain teacher opinions toward full-day kindergarten in 1980. One was developed for full-day kindergarten teachers and the other for first grade teachers who had received full-day kindergarten students. The Likert Method and Scale was used in developing and analyzing the results which showed that full-day kindergarten teachers had a favorable attitude toward the full-day kindergarten concept and first grade teachers were undecided.

The full-day kindergarten teachers were interviewed in 1980 as to the advantages and disadvantages of the full-day program. The disadvantages included the large class size and an increased work load for teachers in planning for the work of aides, in the preparation of lessons for a full day rather than a half day, and in administrative tasks such as collecting money for lunch.

The advantages included children receiving a good noon meal; more time for formal instruction in reading and other basic subjects; more time for music, art, and physical education; time to reinforce skills; more time to work on an individual basis with children; more time for adult and child relationships; more time to participate in primary programs of the school; and children can come to and go from school with older brothers and sisters.

All 25 primary teachers in the four schools with full-day kindergarten completed the Teacher Opinionnaire in 1982. Nine of the teachers were from grade one, eight from grade two, and eight from grade three. The opinionnaire contained 16 statements about full-day kindergarten to which the teachers could respond in agreement or disagreement or be undecided.

In 12 of the 16 statements, a majority of the primary teachers indicated that full-day kindergarten was superior to half-day kindergarten. There was highest agreement with the statements that there was more time to develop basic listening and language skills, that students were not bored, and that students had been exposed to a more in-depth skills program. There was least agreement with the statements that full-day kindergarten children socialize better with their peer group, that there were no apparent differences in the abilities of the children in the two groups, and that children in the full-day kindergarten program were more excited about coming to school.

The opinions of full-day and half-day kindergarten parents concerning their child's total learning in kindergarten were obtained from a ten-item questionnaire in 1980. Parent preference and their reasons for selecting full-day or half-day kindergarten were also solicited on this questionnaire.

In question 1, full-day and half-day kindergarten parents responded the same, with 82 percent saying their child had learned a great deal. However, in questions 2 through 5 pertaining to a child's cognitive, psychomotor, affective, and linguistic growth, a larger number of full-day kindergarten parents indicated that their child had attained at a higher level than half-day kindergarten parents did. In question 6, no learning experience had a clear majority, but learning how to control the body in more coordinated ways was definitely selected as the least important learning experience for kindergarten children.

Question 7 showed that 31 percent of the full-day kindergarten parents found it necessary for someone to care for their child all day and 66 percent did not. Half-day kindergarten parents indicated that 38 percent needed someone to care for their child all day and 60 percent did not.

Of the 131 full-day kindergarten parents who returned the questionnaire, 120 (91.6 percent) indicated in question 8 that, if they had a choice, they would prefer full-day kindergarten instead of half-day kindergarten for their child. Five parents indicated a preference for the half-day session, two parents preferred half-day during the first semester and full-day during the second semester, and four parents chose not to answer this question.

Of the 119 half-day kindergarten parents who returned the questionnaire, 63 (52.9 percent) stated they would select full-day kindergarten if they had the choice, 52 indicated they would select half-day, and four chose not to answer the question.

Question 9 on the parent questionnaire produced the following answers. Of the 131 full-day kindergarten parents who returned the questionnaire, 39 percent were pleased and didn't suggest any improvements; 16 percent thought that a smaller class size would improve their child's kindergarten experience, with the majority of these comments coming from the two pilot schools with the largest classroom enrollments; 25 percent gave various answers that did not combine into like groups; and 20 percent left the question unanswered.

Of the 119 half-day kindergarten parents who answered the questionnaire, 39 percent were pleased and didn't suggest any improvements, 16 percent thought a longer kindergarten day would improve their child's kindergarten experience, 22 percent gave various answers that did not combine into like groups, and 26 percent left the question unanswered.

Question 10 did not produce any significant homogeneous groupings for either group except that many parents were extremely pleased with the teaching ability and the love and concern for young children that the kindergarten teachers had.

A total of 196 questionnaires were mailed to full-day kindergarten parents in the fall of 1982, and 92 of the parents, or 47 percent, returned them. Most of the parents indicated that their children learned more in the full-day kindergarten program; were better prepared for first grade; learned more self-control; became more socially adjusted; gained more self-confidence; became better listeners; were more able to express themselves verbally; were better able to follow directions; learned to enjoy music; had improved handwriting, cutting, and coloring skills; were better prepared for reading and mathematics; developed body coordination; and had better home-school relationships.

To determine if full-day was more tiring than half-day kindergarten, causing more illness or more absences toward the end of the week, attendance by the day was compiled for the 1979-1980 experimental and control groups. To learn if there were any significant differences in the attendance patterns of both groups, the chi-square test of independence was used.

Chi-square was equal to 0.05 which indicated that there was no significant difference between the attendance patterns by days of full-day and half-day kindergarten students. Both groups had more absences on Monday and Friday with fewer on Wednesday.

Half-day students showed 10.8 percent absences for a 27-week period as compared to 8.5 percent absences for the full-day students. It should be noted, however, that the number used was not constant throughout the year due to the changing kindergarten enrollments.

The attendance of students from the two groups in the sixth, seventh, and eighth grades was compared. The mean of the number of days absent for students who attended full-day kindergarten was 8.26 in the sixth grade, 9.31 in the seventh grade, and 9.67 in the eighth grade. This compares to the half-day kindergarten students whose mean of the days absent was 8.07 in the sixth grade, 9.43 in the seventh grade, and 9.69 in the eighth grade. The statistical t-test was performed and none of the differences were statistically significant. Therefore, the null hypothesis that there was no difference in the attendance of the two groups was not rejected.

The attitudes of children who completed full-day kindergarten in 1978-1979 and 1979-1980 were obtained from a ten-item Student Questionnaire that was administered in the fall of 1982. Nine of the items called for yes and no responses; the tenth item asked the question, "What do you remember most about your year in kindergarten?"

The third and fourth grade children were consistent in their answers to the questions. At least 84 percent of the children replied that they felt more grown up when they got to go to school all day; liked eating in the school cafeteria; were glad to go to school full day so that they could spend more time using the blocks, paints, and playhouse; found it easier to learn how to read and learn mathematics in first grade; liked having more music and art; and were glad that they went to full-day kindergarten.

Eleven percent of the third grade children and 23 percent of the fourth grade children indicated that it bothered them to be away from their mothers

or sitters when they went to full-day kindergarten. Thirty-five percent of the third grade children and 39 percent of the fourth grade children indicated that they were frightened when they went to first grade. When asked what they remembered most about their year in kindergarten, the most frequent responses by both groups were in the area of play.

It was not the intent to compare students' attitudes between full-day and half-day kindergarten but rather to determine whether or not the students who attended full-day kindergarten did have a positive attitude toward kindergarten after completing second or third grade. The results of the Student Questionnaire for grades three and four indicated that the children did indeed have a positive attitude toward their full-day kindergarten experience. It should be noted that a similar questionnaire used with the control group might have revealed the same attitudes toward a half-day kindergarten experience.

During the fall of 1982 when the children were in the fourth grade, the Survey of School Attitudes, Intermediate Level, was given to the experimental and control groups who attended kindergarten in 1978-1979. The statistical *t*-test was performed to determine whether there was a significant difference between the full-day and half-day scores. The mean scores for the full-day kindergarten children were higher than those of the half-day kindergarten children in all four subject areas, but they were significantly different only in science.

Also in the fall of 1982, the Survey of School Attitudes, Primary Level, was given to third grade students who had been in the experimental and control groups attending kindergarten in 1979-1980. The mean scores for the children who attended half-day kindergarten were higher than those of children who attended full-day kindergarten in all four subject areas, but they were significantly higher only in social studies.

The results from the Survey of School Attitudes suggested that there was no overall difference in school attitudes between the children who attended full-day kindergarten and those who attended half-day kindergarten, and the null hypothesis was not rejected. One full-day group scored higher than the half-day group in every subject area, and the other full-day group scored lower than the half-day group in every subject area.

The conduct marks on report cards for the first, second, and third grades for the 1978-1979 experimental and control groups and the first and second grade report card conduct marks for the 1979-1980 experimental and control groups were presented in the report. Children received report card marks four times each year in 12 conduct areas. The marks for these 12 areas were S (Satisfactory Progress), I (Improvement Shown), and N (Needs Improvement). At the end of each school year, report card conduct marks were recorded on a composite report along with an average of these marks, and these averages were used to compare the groups.

Children who attended full-day kindergarten received a higher percentage of satisfactory conduct marks 50 times out of a possible total of 60. The full-day kindergarten children received a higher percentage of less-than-satisfactory conduct marks 20 times out of a possible total of 120. There were five instances in which the number of less-than-satisfactory conduct marks was the same for both groups.

The chi-square test of independence was utilized five times for each of the 12 conduct areas. The test revealed that the conduct marks assigned and membership in the experimental and control groups were significantly associated 25 times in which the full-day kindergarten children received higher conduct marks and in one area (uses self-control) in which the half-day kindergarten children received higher conduct marks. These areas for which membership in the full-day kindergarten group was significantly associated with more favorable conduct marks were as follows: obeys playground rules (5), shows self-confidence (4), respects property of others (4), uses time wisely (3), puts forth best effort (3), follows directions (2), works independently (2), works well with others (1), and listens attentively (1). Therefore, the null hypothesis was rejected in these 25 areas.

Children enrolled in kindergarten in the four experimental and four control schools in June 1979 and June 1980 were compared to grade levels when children should have been in grades three and four to determine those promoted to a higher grade and those nonpromoted. The nonpromoted information referred only to those children who were still enrolled in the same school in June 1982 and did not involve children in the 1978-1979 or 1979-1980 kindergarten groups who had moved to other schools. Children who were nonpromoted as a result of being placed in special education were included in the nonpromotion totals.

A higher percentage of children were nonpromoted from the groups of children who attended half-day kindergarten. Nineteen percent of the children who attended half-day kindergarten in 1978-1979 were nonpromoted at the end of kindergarten, grade one, grade two, or grade three; and only nine percent of the children who attended full-day kindergarten were nonpromoted. Seventeen percent of the children who attended half-day kindergarten in 1979-1980 were nonpromoted at the end of kindergarten, grade one, or grade two; and only four percent of the children who attended full-day kindergarten were nonpromoted.

The chi-square test of independence disclosed that the probability was less than 1 in 100 that the observed findings could have occurred by chance and that the rate of nonpromotion and membership in the experimental and control groups were significantly associated. Therefore, the null hypothesis was rejected.

The 1988 status of the 1978-1979 and 1979-1980 experimental and control groups showed that the percentages for the full-day students varied from 53 to 58 percent promoted, 7 to 9 percent nonpromoted, 4 to 6 percent placed in special education, and 30 to 32 percent withdrawn from the school system. The percentages for the half-day students varied from 50 to 52 percent promoted, 9 to 15 percent nonpromoted, 2 to 3 percent placed in special education, and 30 to 38 percent withdrawn from the school system.

The chi-square for the 1978-1979 group was 3.74 and not significant. The frequencies in each category were found to be independent of membership in the full- or half-day group.

For the 1979-1980 group, the chi-square was 8.02. There was less than 5 percent probability that the frequencies in each category were independent of the full- or half-day kindergarten group membership.

The Piers-Harris Children's Self-Concept Scale was administered to children in both the experimental and control groups in the fall of 1982. The statistical *t*-test was performed to determine whether there was a significant difference between the full-day and half-day kindergarten mean scores.

The 1978-1979 full-day kindergarten children had higher self-concept scores than did the half-day kindergarten children with a mean score of 58.99 compared to a mean score of 54.81 for half-day kindergarten children. The full-day kindergarten children scored significantly higher with the statistical *t*-test showing $t = 1.98$ and $p < .05$. Therefore, the null hypothesis was rejected.

The 1979-1980 full-day kindergarten children had higher self-concept scores than did the half-day kindergarten children with a mean score of 60.48 compared to a mean score of 58.41 for half-day kindergarten children. However, the difference was not significantly higher with the statistical *t*-test showing $t = 1.08$, and the null hypothesis was not rejected.

Data organized from the Kindergarten Task Observation Assessment administered in 1980 were used to obtain a limited indication of the psychomotor, affective, linguistic, and cognitive growth of full-day and half-day kindergarten students. This was developed to use firsthand observations as an evaluation technique. The statistical chi-square test of independence was used to determine whether there were any significant differences in the task performances of full-day and half-day kindergarten students.

After the chi-square test of independence was performed for each task to determine whether there were significant differences between the task performances, a significant difference was found in only one task on which half-day students performed at a higher level than full-day students.

The null hypothesis that there was no difference in the two groups in the Kindergarten Task Observation Assessment was not rejected.

The Boehm Test of Basic Concepts was given only to full-day kindergarten students. Form A was given as a pretest in September of 1979, and Form B was administered in April of 1980 as a posttest. Scores obtained from Evansville's full-day kindergarten students were compared to the average socioeconomic norms established for the Boehm Test.

When the mean score of the pretest (36.25) for the Evansville full-day kindergarten students was compared to the norm group, average socioeconomic status, the percentile rank was 65. This was compared to a 31.80 mean score for the norm group which had a percentile rank of 50. The mean score of full-day kindergarten students on the posttest (43.07) had a percentile rank of 85, using mid-year norms; the norm group had a mean score of 35.30 which had a percentile rank of 45. Thus, the full-day kindergarten students ranked 40 percent higher than the norm group, and the null hypothesis that there was no difference between the two groups was rejected.

The California Achievement Tests were administered to the 1978-1979 experimental and control groups during the same week in April of 1979 by the kindergarten teachers. The same procedure was repeated in March of 1980 for the 1979-1980 kindergarten experimental and control groups.

Results show that except in one case all subtests and combined scores were significantly higher for full-day kindergarten students when compared to the subtests and combined scores of half-day kindergarten students. In 1979 the mean score for prereading skills for full-day students was 106.09 compared to a 96.50 mean score for half-day kindergarten students. Therefore, the achievement level of full-day students was 9.59 points higher than half-day students. In 1980 the full-day mean score in prereading was 102.38 compared to 95.70 for half-day students, making full-day 6.68 points higher than half-day. The mathematics results show the full-day mean score higher by 4.22 points in 1979 and higher by 2.99 points in 1980. Therefore, the null hypothesis that there was no difference in the readiness scores for the two groups on the California Achievement Tests was rejected.

Handwriting tests were given in the fall of 1982 to the 1978-1979 and 1979-1980 experimental and control groups. The Evaluation Scale--Cursive for grade three was used with the 1979-1980 group, and the Evaluation Scale--Cursive for grade four was used with the 1978-1979 group. Each test included five areas: letter formation, slant, spacing, alignment and proportion, and line quality. The handwriting tests were rated 1, excellent; 2, good; 3, average; 4, fair; and 5, poor.

The children who attended half-day kindergarten in 1978-1979 and 1979-1980 had lower mean scores on the handwriting test. Because the rating of 1 was high and 5, low, a lower mean score indicated that the half-day kindergarten children performed better on the Evaluation Scale-- Cursive than did the children who attended full-day kindergarten. The 1979-1980

control group scored significantly higher than the experimental group with the statistical t-test showing $t = 2.08$ and $p < .05$.

The null hypothesis that there was no difference in the handwriting for the two groups as measured by the Evaluation Scale--Cursive was rejected.

Follow-up data on the 1978-1979 full-day and half-day kindergarten students were obtained from the Gates-MacGinitie Reading Tests that were administered in April of 1980 to all first grade students. To make these results more valid, only full-day and half-day students who had attended kindergarten and first grade in the same school were used.

Follow-up results show that the kindergarten students who attended full-day in 1978-1979 scored significantly higher than the kindergarten students who attended half-day with the statistical t-test showing $t = 6.12$ and $p < .005$.

The total mean score for full-day was 64.19 compared to a total mean score of 50.41 for half-day students. In comparing the mean scores for vocabulary (38.24, 27.17) and for comprehension (25.95, 23.24), it was determined that the kindergarten full-day group was 11.07 points higher in vocabulary and 2.71 points higher in comprehension.

The Gates-MacGinitie Reading Tests were administered to children in the spring of 1982 when the 1978-1979 groups were in the third grade and the 1979-1980 groups were in the second grade. The statistical t-test was performed to determine whether there was a significant difference between the full-day and half-day kindergarten group mean scores.

The results of the Gates-MacGinitie Reading Tests showed that the children who attended full-day kindergarten in 1978-1979 and 1979-1980 had higher mean scores in vocabulary and comprehension. For both the 1978-1979 and 1979-1980 groups, the results of the t-test showed that the vocabulary and comprehension scores were significantly higher for the children who had attended full-day kindergarten.

The null hypothesis that there was no difference in the reading scores for the two groups as measured by the Gates-MacGinitie Reading Tests was rejected.

The Comprehensive Tests of Basic Skills were administered to children in the 1978-1979 experimental and control groups in the spring of 1982, 1984, and 1986. The statistical t-test was performed to determine whether there was a significant difference between means of the full-day and half-day kindergarten group scores.

The two groups were compared a total of 42 times. The mean scores of students who attended full-day kindergarten were higher in every test in all three grades and significantly so in 27 of the 42 comparisons. The total battery was significantly higher in favor of the full-day kindergarten students all three years.

The null hypothesis that there was no difference between the two groups was rejected.

Middle school students in the Evansville-Vanderburgh School Corporation have the opportunity to participate in the Academic Academy, athletics, and other activities. The Academic Academy is an after-school program that includes choir, drama, forensics, computers, mathematics, and science. Athletics include football, volleyball, basketball, and track. Other activities include band, cheerleading, choir, library aide, orchestra, pompon squad, safety patrol, and student council.

There were 73 extracurricular activities in the middle school in which the former full- and half-day kindergarten students had an opportunity to participate. The percent of participation was higher 47 times for the full-day kindergarten students and 22 times for the half-day kindergarten students. However, the differences were significant in only 6 of the 73 comparisons, so the null hypothesis that there was no difference in the middle school extracurricular activities of the two groups was not rejected.

The children received report cards four times each year in the primary grades. The marks that they received in subject achievement were S (Satisfactory Progress), I (Improvement Shown), and N (Needs Improvement). At the end of each school year, report card grades were recorded on a composite report along with an average of these marks; these average marks were used to compare the groups.

The 1978-1979 and 1979-1980 experimental and control groups were compared in academic grades 23 times. The experimental groups consistently had a higher percentage of satisfactory marks and a lower percentage of less-than-satisfactory marks. The chi-square test of independence revealed that the grade assigned and membership in the experimental and control groups were significantly associated in 11 of the 23 times that they were compared. Those subject areas in which the probability was less than .05 that the observed findings could be attributed to chance were mathematics, four times; reading, three times; spelling, two times; and English and handwriting, one time each. The null hypothesis was not rejected in the other 12 areas.

The mean grade point average for students in grade six who attended full-day kindergarten was 2.68, and the mean grade point average for students who attended half-day kindergarten was 2.49. The difference was significant with the statistical t-test showing $t = 1.69$. In grade seven, the mean grade point average for the full-day students was 2.84, and the mean for the half-day students was 2.57. The difference was significant with the statistical t-test showing $t = 2.70$. The eighth grade students who attended full-day kindergarten had a mean grade point average of 2.80 and the students who attended kindergarten for a half day had a mean grade point average of 2.57. The difference was significant with the statistical t-test showing $t = 2.46$. The null hypothesis was rejected at all three grade levels.

Scholarship ratings are uniform in all ten middle schools. Students with a 4.0 average achieve the Distinguished Scholarship rating, students with 3.50 to 3.99 achieve the Scholarship A rating, and students with 3.00 to 3.49 achieve the Scholarship rating.

The full-day kindergarten students had a higher percentage of scholarship ratings in every category for all three years. The chi-square test of independence revealed that the number of students attaining scholarship ratings was significantly associated in the sixth grade Distinguished Scholarship rating and total scholarship ratings and in the eighth grade Scholarship A rating. Students who attended full-day kindergarten had a scholarship ratings total of 60.0 percent in grade six, 46.2 percent in grade seven, and 45.2 percent in grade eight compared to the half-day kindergarten children who had a scholarship ratings total of 35.9 percent in grade six, 35.5 percent in grade seven, and 32.7 percent in grade eight. The null hypothesis that there was no difference in the report card academic marks for the two groups was rejected.

Two questions were raised concerning enrollment. First, would parents choose to enroll their children in full-day kindergarten when given the option to enroll their children in either full- or half-day kindergarten? Second, would a larger percentage of children attend public school kindergarten as a result of full-day kindergarten being made available?

In 1983, 700 out of 706 students, or 99.15 percent, attended full-day kindergarten. In 1986, 1435 out of 1439, or 99.72 percent, attended for a full day. In 1988, the pattern continued as 1931 out of 1933 students, or 99.89 percent, attended full-day kindergarten.

The null hypothesis that there was no difference in parents choosing full- or half-day kindergarten for their children was rejected.

Children born in 1971-1972 were eligible to enter kindergarten in the 1977-1978 school year, the last year prior to full-day kindergarten being available. Of the 2502 children born of residents in Vanderburgh County, 1771, or 70.8 percent, enrolled in public school kindergarten. Children born in 1981-1982 were eligible to enter kindergarten in the fall of 1987. Of the 2453 children born of residents, 1917, or 78.1 percent, attended public kindergarten. If only 70.8 percent of the 1987-1988 group of children had attended kindergarten, the total enrolled would have been 1737, or 180 less than actually enrolled.

The null hypothesis that there was no difference in the percentage of children born of residents who were subsequently enrolled in kindergarten prior to the implementation of full-day kindergarten compared to the 1987-1988 school year was rejected.

Conclusions

Opinions of Teachers and Parents

The majority of full-day kindergarten teachers and primary teachers of children who attend full-day kindergarten are in favor of full-day kindergarten.

Most of the parents of children in full-day kindergarten are positive about the program at the end of kindergarten and continue to have a favorable attitude in later years.

Attendance, Attitudes, Conduct, Nonpromotion, and Self-Concept

There is no significant difference in the attendance of the full- and half-day kindergarten students.

Children who attend full-day kindergarten have positive feelings about their kindergarten experience.

There is no difference in the school attitudes or self-concept of children who attend full- or half-day kindergarten.

Children who attend full-day kindergarten have higher conduct marks on report cards in the primary grades than do children who attend for a half day.

Full-day kindergarten has no significant impact on promotion or nonpromotion of children.

Achievement Test Results

Children who attend full-day kindergarten when compared to children who attend half-day kindergarten consistently have higher achievement test scores in all areas tested except handwriting. The children who attend half-day kindergarten have significantly higher handwriting test scores. All other areas have significantly higher total test scores in favor of full-day kindergarten, including readiness tests at the end of kindergarten; reading tests in grades one, two, and three; and a battery of standardized tests in grades three, five, and seven.

Extracurricular Activities

There is no significant difference in participation in middle school extracurricular activities between children who attend full- or half-day kindergarten.

Report Card Academic Marks

Children who attend full-day kindergarten have higher report card academic marks in both the primary and middle school years.

Enrollment

Parents, when given the option to enroll their children in full- or half-day kindergarten, almost always enroll their children in full-day kindergarten.

The percent of children born in Vanderburgh County who attend public school kindergarten increases with the availability of full-day kindergarten.

Discussion

Two cautions should be noted while considering the findings and implications of this study. First, as is true with any classroom-level intervention study, the true level of analysis should be the classroom. Traditional statistics require that the "subjects" have uncorrelated error terms--in effect, that they be independent of each other. Since all of the students in a particular half- or full-day kindergarten class were involved in the "same" program, they are not truly independent. However, the cost of generating the number of classrooms necessary to conduct such statistical analyses abiding by this "letter of the law" of statistics would obviously be prohibitive. Thus, convention has been followed by using students as the level of analysis.

A second concern reflects the potentially correlated outcome variables. In interpreting the results, it must always be kept in mind that a number of the outcome measures (e.g., grades and attendance) are likely to be correlated with each other. Multivariate approaches (such as multivariate analyses of variance or multivariate multiple regression) could address this concern; however, they too require large cell sizes in order to achieve adequate statistical power. Therefore, in this report, conceptually simpler and more easily interpreted univariate analyses such as chi-square and Student's t statistics have been reported.

The apprehensions expressed prior to and in the beginning stages of the initial pilot project in four schools focused on cost, parent and teacher acceptance, student achievement, and "burnout" of children which might result in poor attitudes about school, lower self-concept, lower conduct and academic marks, poor attendance, and less participation in extracurricular activities.

The cost of full-day kindergarten continues to be a problem. Almost half of the children enrolled in kindergarten in the United States attend full-day kindergarten, and in most states with the majority of their children attending for a full-day, the state reimburses the local school districts for the program. Indiana, however, does not reimburse local school districts for full-day kindergarten.

The other concerns appear not to be justified in light of the evidence obtained over the nine-year period. Parents have accepted the program as indicated by surveys and the fact that over 99 percent of the parents have elected to enroll their children in full-day kindergarten in every year

where data were collected. Furthermore, the percent of people choosing public school kindergarten for their children has increased. Teachers have indicated support for the program but are concerned about class size. Student achievement as a result of full-day kindergarten was higher at the end of kindergarten, and the gap between the children who attended full- and half-day kindergarten never closed throughout the elementary and middle school years.

Finally, there was no evidence to support the concern that attending full-day kindergarten might cause "burnout," resulting in various participatory, attitudinal, and academic problems. No significant difference was found in attendance, school attitudes, self-concept, or participation in extracurricular activities; and the report card conduct and academic marks significantly favored the students who had attended full-day kindergarten.

BIBLIOGRAPHY

All-Day Kindergarten: Resources for Decision-Making. Trenton: New Jersey State Department of Education, 1985, 105 pp.

Boehm, Ann E. Boehm Test of Basic Concepts. San Antonio: The Psychological Corporation, 1970.

Burns, Paul C., and Broman, Betty L. The Language Arts in Childhood Education. Boston: Houghton Mifflin Company, 1979.

California Achievement Tests. Monterey: CTB/McGraw-Hill, 1970.

Comprehensive Tests of Basic Skills. Monterey: CTB/McGraw-Hill, 1981.

Evaluation Scale--Cursive, Grades 3 and 4. Columbus: Zaner-Bloser, 1979.

Hogan, Thomas P. Survey of School Attitudes, Manual for Administering and Interpreting. New York: Harcourt, Brace, Jovanovich, Inc., 1975.

Jersild, Arthur T. In Search of Self: An Exploration of the School in Promoting Self-Understanding. New York: Teachers College, Columbia University, Bureau of Publications, 1952.

A Longitudinal Study of the Effectiveness of Full-Day Kindergarten. Evansville, Ind.: Evansville-Vanderburgh School Corporation, 1983, 103 pp.

MacGinitie, Walter H. Teacher's Manual for Gates-MacGinitie Reading Tests, Second Edition. Boston: Houghton Mifflin Company, 1978.

Piers, Ellen V. Manual for the Piers-Harris Children's Self-Concept Scale. Nashville: Counselor Recordings and Tests, 1969.

Position Statement on Kindergarten. Omaha: Nebraska State Board of Education, 1984, 9 pp.

Report to the State Board of Education: Full-Day, Daily Kindergarten. St. Paul: Minnesota Board of Education, 1986, 17 pp.

The Status of Kindergarten: A Survey of the States. Springfield: Illinois State Board of Education, 1985, 20 pp.

A Study of the Effectiveness of Full-Day Kindergarten. Evansville, Ind.: Evansville-Vanderburgh School Corporation, 1980, 106 pp.